INNOVATIVE
interfaces

July 12, 2001

Patricia M. Guise, CPPB
Senior Buyer
Purchasing Department
Winchester Hall
12 East Church Street
Frederick, Maryland 21701

Dear Ms. Guise:

Innovative Interfaces is pleased to respond to your interest in an integrated library system for Frederick County. Innovative is very excited about the prospect of serving the community of Frederick County by implementing the widely acclaimed Millennium integrated online system.

Hundreds of libraries in North America and beyond are now using automated systems from Innovative Interfaces. Public libraries throughout the U.S, such as Arlington Heights Memorial Library, Berkeley Public Library, the Public Library of Nashville and Davidson County, Evansville-Vanderburgh County Public Library, Alameda County Library System and the Boston Public Library have all chosen Millennium.

The Java-based client software in Millennium, Innovative's Web-based library automation system, was singled out by *Library Journal* (April 1, 1999) as "one of the most impressive technological developments in integrated library systems." Intuitive, state-of-the-art technology and reliability: that's why our customer base is steadfast and steadily growing.

- Millennium operates under the industry standard open UNIX operating system. No third-party DBMS or other software is required. UNIX has outstanding networking capabilities and is available on computers made by many manufacturers, including the newest, fastest machines available from Compaq/Digital, SUN, IBM and Hewlett Packard. This ensures unlimited expansion possibilities and makes for a better long-term high technology investment.

- Millennium has available a complete range of fully-developed, fully-functional modules; including Z39.50 client and server interfaces, online downloading from a wide range of bibliographic utilities, patron-initiated holds and interlibrary loans, etc. All modules are up and fully running in libraries today.

- Millennium is designed to be configured to meet the unique needs of each library.

- Millennium supports input and display of the full ALA character set as well as the Chinese-Japanese-Korean (CJK) character set, and is completely multi-lingual.

- Millennium is designed to run 24 hours a day; all updates to the database are performed in "real time"; file reorganizations and "batch jobs" are things of the past.

- Millennium is particularly suited to public libraries which offer a wide range of services to their communities, for which reference databases, flexible circulation policies, and quick transaction processing are key components.

- Millennium's management reports are unequalled; they are easy to retrieve, may be limited to individual locations or generated for an entire system, are available on demand and encompass the activities of every area in the Library.

- Millennium offers excellent value as a long-term investment; software upgrades are provided and installed as part of Innovative Interfaces' comprehensive support services; Millennium's UNIX base makes it the most transportable system in the marketplace.

In order to get a brief idea of what Millennium is like, please try it out on the World Wide Web. Just enter the URL http://www.iii.com into your Web browser.

Innovative Interfaces maintains a tradition and commitment to remain in the forefront of automation development. I invite you to review the information provided here. Please feel free to contact me if you have any questions or need additional information. I look forward to speaking with you very soon.

Sincerely yours,

Marsha Stark
Vice President World Wide Sales

Stephen Strohl
District Sales Executive

MS/SS/rp

INNOVATIVE
interfaces

July 12, 2001

Patricia M. Guise, CPPB
Senior Buyer
Purchasing Department
Winchester Hall
12 East Church Street
Frederick, Maryland 21701

Dear Ms. Guise:

We have prepared our bid for submission. You have indicated that you wish to examine Innovative's financial condition as part of your process. We are more than willing to provide you with this information. Because of its confidential nature, we would ask that you adhere to the following guidelines.

Innovative Interfaces will provide you with a copy of our most recent Financial Statement in a sealed envelope, addressed to the person or committee concerned, and marked as "ATTENTION AND USE ONLY". We would ask that the designated person or committee neither disclose nor permit any other employee, person or entity to view, copy or summarize the contents of the Financial Statement. The designated person or committee representative should retain the statement in his or her personal custody, until it is returned to Innovative when one of the following occurs:

- Within two weeks of the signing of this letter; or
- When a written demand is sent by Innovative, in the event that no contract is entered into between Innovative and the Library; or
- Where the contract between Innovative and the Library is terminated.

Your non-use and confidentiality obligations shall remain in place at all times. The designated person or committee representative should sign the first page of the Financial Statement on its return, to indicate that these terms were complied with.

We very much appreciate your cooperation in this important matter. Please execute this letter in the space provided to indicate your agreement with its contents, and return it to us.

Again, thank you for your interest in Innovative Interfaces Inc., and please contact me at your convenience if you need further assistance.

Sincerely,

INNOVATIVE INTERFACES, INC.

By: Heidi Van Niekerk

Title: Contracts Manager

Date: 7/12/01

The foregoing is hereby agreed to:

LIBRARY

By: _____

Title: _____

Date: _____

INNOVATIVE
interfaces

July 12, 2001

Purchasing Director
Winchester Hall
12 East Church Street
Frederick, Maryland 21701

Dear Sir or Madam:

Innovative Interfaces is pleased to provide a review copy of the *Millennium User Manual* for Release 2000 as a supplement to Innovative's RFP response for the Library's evaluation of how the Millennium system will meet its needs. Innovative asks that the CD-ROM be returned once the review has been completed to:

Attn: Kevin Montreuil
Bids Department
Innovative Interfaces, Inc.
5850 Shellmound Way
Emeryville, CA 94608

Should the Library select Innovative as its library automation provider, the documentation may, of course, be kept by the Library.

Sincerely,

Kevin Montreuil
Manager of Sales Systems and Support

KM/rp

CERTIFICATION

The Department of Purchasing requests as a matter of policy that any firm receiving a contract or award from Frederick County, Maryland, shall make certification as below. Receipt of such certification, under oath, shall be a prerequisite to the award of contract and payment thereof.

I (we) hereby certify that if the contract is awarded to our firm, partnership or corporation that no member of the elected governing body of Frederick County, or members of his or her immediate family, including spouse, parents or children, or any person representing or purporting to represent any member or members of the elected governing body, has received or has been promised, directly or indirectly, any financial benefit, by way of fee, commission, finder's fee, political contribution, or any similar form of remuneration on account of the acts of awarding and/or executing this contract.

HANDWRITTEN SIGNATURE OF AUTHORIZED PRINCIPAL(S):

NAME: Marsha Stark Marsha J Stark

TITLE: Vice President, Sales

NAME OF FIRM/PARTNERSHIP/CORPORATION:

Innovative Interfaces

DATE: June 25, 2001

PURCHASING DEPARTMENT
FREDERICK COUNTY, MARYLAND

Winchester Hall
12 East Church Street
Frederick, Maryland
21701

PHONE 301-694-1067
FAX 301-694-2521

COMMISSIONERS

David P. Gray
President

Terre R. Rhoderick
Vice President

Jan H. Gardner

Ilona M. Hogan

John L. Thompson, Jr.

COUNTY MANAGER

Ronald A. Hart

COMPTROLLER/ DIRECTOR OF FINANCE

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PURCHASING DIRECTOR

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CHARACTER COUNTS!
JOSEPHSON INSTITUTE OF ETHICS SM
TRUSTWORTHINESS • RESPECT
RESPONSIBILITY • FAIRNESS
CARING • CITIZENSHIP

June 29, 2001

RFP#01-77, Library Automation Software
(#0000000275)

Addendum #1

The following information is to be incorporated into the above referenced RFP by way of reference. Please acknowledge receipt of this Addendum by including a copy of this page in the Technical portion of your response.

An electronic copy of this RFP and all Addenda can be found at the following Web site: **www.co.frederick.md.us/govt/rfp.**

MFH/js

End of Addendum #1

Response to Frederick County, Maryland

Request for Proposal

Innovative Interfaces, Inc.

Introduction to Millennium
- INN*Touch* Newsletters
- Millennium Brochures

1) **Financial Proposal**
   - Forwarded under Separate Cover

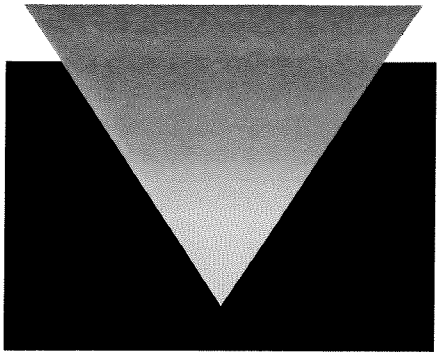
2) **Response to Requirements**
   - Innovative Interfaces: The Power of Partnership
   - Vendor Response
   - System Requirements
   - General Requirements

3) **System Description**
   - Millennium System Description
   - Millennium Standard Reports

4) **Standard Contract**
   - Innovative Interfaces' Standard Hardware/Software Agreements

5) **Millennium Training Outline**

6) **Supporting Documentation**
   - Affirmative Action Data Form
   - References
   - Libraries Using Millennium/Innopac Library Systems
   - Escrow Agreement



millennium

INNOVATIVE INTERFACES, INC.

RESPONSE TO REQUIREMENTS

Frederick County, Maryland

Request for Proposal

July 12, 2001

INNOVATIVE
interfaces

THE POWER OF PARTNERSHIP

2001

History
Vision
Business Philosophy
Customer Base
Organization Profile
People
Financial Profile
Technical Environment
Hardware Environment
Implementation
Training
Customer Service and Support
Research and Development
Millennium Product Overview

INNOVATIVE INTERFACES

2001 FACT SHEET

· HISTORY ·

Innovative was founded in 1978 by a small group of librarians and computer professionals whose paths converged at the University of California Library in Berkeley. As working librarians and computer scientists, they saw a clear and immediate need for open solutions that would enable fledgling library automation systems to communicate with each other. Soon thereafter, the "black box" was born, an interface between OCLC and CLSI which allowed libraries to download bibliographic records into a circulation system without re-keying. Demand for this revolutionary new device was so great that the company has since experienced a steady path of controlled growth and product innovation.

Innovative's second product, INNOVACQ—a sophisticated acquisitions and serials control solution—was introduced in 1981 when other automation suppliers were still grappling with the fine tuning of first-generation circulation systems. With the introduction in the mid-1980s of INNOPAC, a fully integrated UNIX-based system for public access, cataloging, circulation, serials and acquisitions, Innovative was well on its way to becoming a leader in library automation. *Library Journal*, in its April 1, 1988, issue, called Innovative "the vendor to watch." By 1995, *Library Journal* was describing Innovative as a "premier" supplier of automated systems and noted that "INNOPAC is the system for libraries seeking a solution with guarantees of being around in the long term." In the 1997 Automated System Marketplace review by *Library Journal*, Innovative was acknowledged as a "hot, cutting-edge" company and complimented for its inauguration of Millennium, a totally Web-based product.

Most recently, *Library Journal* (April 1, 1999) said: "The Java™-based client software of Millennium is one of the most impressive technological developments in integrated library systems. Most companies spouting Java-based products simply use JavaScript or simple Java applets within a Web browser, but Millennium's Java client is a sophisticated example of how Java actually can revolutionize software development."

Innovative is still privately owned by two of its original founders, Gerald Kline and Stephen Silberstein, who are actively involved in the company's day-to-day operation and development path. They maintain the same focus, energy, and commitment to meeting and exceeding the needs of libraries and librarians that has propelled Innovative to the forefront of the library automation industry. The solid technological framework, real-life understanding of libraries, and intuitive software design that brought Innovative this far enables the company to launch ahead with new, cutting-edge solutions from a vantage point grounded in strength and stability.

Strategic development continues to focus on providing the best open system available, delivering state-of the-art networking, standards-compliant functionality, and electronic information delivery in a modular, fully-integrated framework, giving libraries choices in custom-designing a comprehensive information resource system that meets their own unique needs.

At the American Libraries Association conference in July 1996, Innovative announced its commitment to add Web-based software to its existing INNOPAC by introducing the new Millennium suite of products. One of the most significant developments in the industry, Millennium provides a pathway for the transformation to totally Web-based systems -- while preserving each library's freedom to travel this path at their own pace.

As the first library automation vendor to publicly state its support of Web-based tools for both public and staff applications, Innovative is enabling libraries to take advantage of the expanding array of current and emerging technologies.

Millennium incorporates a wide range of the latest technologies into the INNOPAC system:

- Java Applets empower libraries to take advantage of the new, less expensive network computers or use existing PCs more efficiently, since requirements for disk and memory are minimal.
- Extensive Internet and intranet integration links users seamlessly to full text and images on other servers.
- A full suite of APIs enables libraries to output and customize data using virtually any commercial application, integrating with the electronic tools used outside of the library environment.
- Relevance ranking for advanced full text searching gives users a more sophisticated search engine while retaining the ease-of-use for which INNOPAC is known.
- Electronic Image and Document Management creates access to a "virtual" library of photographs, charts, diagrams, and full text which users may search, display, download and print from any workstation regardless of its location.
- A Graphical User Interface for all modules enhances traditional INNOPAC functionality with the visual clarity of full color, windows, and point and click ease.

INNOVATIVE INTERFACES

2001 FACT SHEET

· VISION ·

Innovative Interfaces partners with libraries worldwide to provide information technology solutions to both patrons and staff. Innovative's Millennium system is a Web-based, open-platform system that offers the best and most comprehensive functionality of any library automation software. Its Java interface offers staff and patrons an intuitive, easy-to-use, and platform-independent system. With its multi-tiered system architecture, object-oriented design and complete scalability, Millennium provides full integrated functionality; its core modules constitute a time- and library-tested automation system that can be implemented in every type of library. Millennium provides full integrated functionality for cataloging, authority control, online public access catalogs, circulation control, acquisitions, serials control, inventory, media scheduling, image management, interlibrary loan, community information, character support for nearly 20 languages and referral and reference databases.

Innovative prides itself on its adaptation to, and adoption of, new technologies; it offers libraries industry-standard software solutions that are platform-independent, Web-based and intuitive, as well as outstanding, industry-leading services and support.

Innovative's business acumen and technological foresight affirm that the demand for services delivered via the Internet, intranets and the Web will continue to increase. The traditional integrated library system -- OPAC, Cataloging, Acquisitions, Serials, etc. -- is the backbone upon which the new model for information delivery is being built. The new Millennium model is a truly integrated and open-library system that communicates seamlessly with the global information environment, maximizing each library's potential to synergize local, national and international electronic resources and to lead their user communities in the practical use of new technologies as they continue to evolve.

INNOVATIVE INTERFACES

2001 FACT SHEET

· BUSINESS PHILOSOPHY ·

Over the years, Innovative Interfaces has valued its relationships with libraries of all kinds -- from large academic, to public consortia, to specialized corporate and government libraries. Innovative understands how the roles of today's libraries are evolving as major information centers within the greater context of their user communities. Innovative believes that libraries today need more than just another turnkey system, more than just a company that installs a system and fields service calls. Libraries want to form a strategic partnership with a company that not only provides site-specific solutions, but works closely with them to develop new software and services. Innovative is a company that shares the vision and goals of its libraries, and focuses on making them a reality, and delivers the flexibility, the talent, the energy, and the resources to partner with customers in creating practical, cost-effective solutions that are viable now and designed to evolve with new technologies into the next millennium.

WHAT MAKES INNOVATIVE INTERFACES UNIQUE?

· Continually creating new solutions for new needs ·

Innovative is a privately held corporation whose future and direction remain independent of parent-agency ownership. The company is focused exclusively on library automation systems and services, and is not subject to the dictates or bureaucratic processes of outside controlling forces. Development, decision-making, and leadership all occurs locally, driven largely by customer input. For libraries, this means that decisions can be made instantly and customized solutions can be implemented in record time.

One reason for Innovative's well established success is a commitment to development. Innovative operates in the environs of Silicon Valley, the mother lode of today's computer industry. Innovative has its finger on the pulse of not just technology at large, but on technology that is appropriate and practical for libraries. Innovative is not afraid to research and develop new solutions, and we have a well deserved reputation for enhancements based largely on input from our libraries. Innovative is always looking for opportunities to partner with libraries in joint developments and encourages libraries to work with us, a process which benefits all our users. Innovative is ready and eager to commit resources to ongoing joint development projects with its customers.

· Solutions you need, when you need them ·

With almost 200 employees, Innovative works smart, focusing over 60% of its staff exclusively on customer service. Rather than putting the majority of our resources into management or administration, Innovative's dedication of staff power to service gives our libraries the high level of support they deserve and expect.

· The best of all possible solutions: sophisticated functionality combined with ease-of-use ·

Millennium offers breadth and depth of functionality with a simple, intuitive user interface. Context-sensitive help is implicit every step of the way, and users never need to interrupt or exit a session to request help. Even novice users can enter search queries and retrieve results in a matter of seconds. Additional staff resources for tutoring or training inexperienced users are simply not necessary.

No technical skill or specialized training is required of library staff. Indexing occurs automatically online; no one has to "re-build" indexes. System maintenance needs are absolutely minimal. Staff can easily run daily backups from system menus in just 15-20 minutes, with weekly backups taking only I-2 hours -- and all backups are performed while the system is fully operational; it is never necessary to bring the system down.

· Solutions that work together ·

Innovative knows that no single library system can provide all the answers for each and every library. Instead, our role as a systems integrator is to open up the world of possibilities to our customers and facilitate their management of diverse resources. For example, Innovative has developed APIs to parent-agency accounting programs, campus registrar systems, and SQL database management systems. Millennium interfaces with every bibliographic utility, every major book and serial vendor system, CD-ROM networks and remote hosts. Innovative leads its competitors for library systems on the Internet and Web by a ratio of two to one, as may be verified by recent Hytelnet statistics -- simply point your browser to http://library.usask.ca/hytelnet.

Product design philosophy is based on allowing each library to build its own unique system by acquiring only those modules or features that it requires, without having to purchase unnecessary products as part of a "package." Innovative has long believed that open systems offer the most viable solution to libraries. Rather than develop proprietary non-transportable software, Innovative has always supported UNIX which runs on a number of hardware platforms such as Compaq/Digital, Hewlett Packard, Sun and IBM. Innovative has always supported the full MARC format and Innovative was one of the first library automation vendors to install fully functional Z39.50 client/server applications. From BISAC to X.12 to EDIFACT, Innovative has always chosen to implement open solutions based on world-wide industry standards. As a consequence, libraries may easily travel an upgrade path to new technologies without having to re-invest heavily in proprietary equipment or software.

Innovative operates with a philosophy that dovetails with the mandate of libraries:

create access to and manage the universe of information
with cost-effective solutions using the best available technologies.

INNOVATIVE INTERFACES
5850 Shellmound • Emeryville, CA 94608 • 800-878-6600 • Fax 510-450-6350 • Email info@iii.com • www.iii.com

INNOVATIVE INTERFACES

FACT SHEET

· 2001 CUSTOMER BASE ·

Total number of systems
1,000+

Systems by library type
81% academic libraries
12% public libraries
6% special/corporate libraries
1% school libraries

Systems by geographic distribution
84% in North America
10% in Asia/Oceania
4% in Europe
2% in Africa/Middle East

Largest systems by bibliographic database size

OhioLINK	8 million bib records
New York Public Library	5.5 million bib records
University of Missouri Libraries	4.1 million bib records
University of Washington	3.5 million bib records
MOBIUS Consortium, MO	3 million bib records
University of Arizona	3 million bib records
University of Colorado, Boulder	2.5 million bib records
University of Maine	2.15 million bib records
Suffolk Cooperative Library System, NY	2 million bib records

INNOVATIVE INTERFACES
5850 Shellmound • Emeryville, CA 94608 • 800-878-6600 • Fax 510-450-6350 • Email info@iii.com • www.iii.com

INNOVATIVE INTERFACES

2001 FACT SHEET

· ORGANIZATION PROFILE ·

· Corporate Headquarters ·

Innovative Interfaces, Inc.
5850 Shellmound Way
Emeryville, CA 94608
Tel: 510-655-6200
Fax: 510-450-6350

· Legal Establishment ·

Innovative is a California Corporation, incorporated in 1978. This may be verified with the Sacramento, California, office of the Secretary of State of the State of California. Innovative was incorporated in Canada in 1990, the United Kingdom in 1994, and the Republic of China (Taiwan) in 1996.

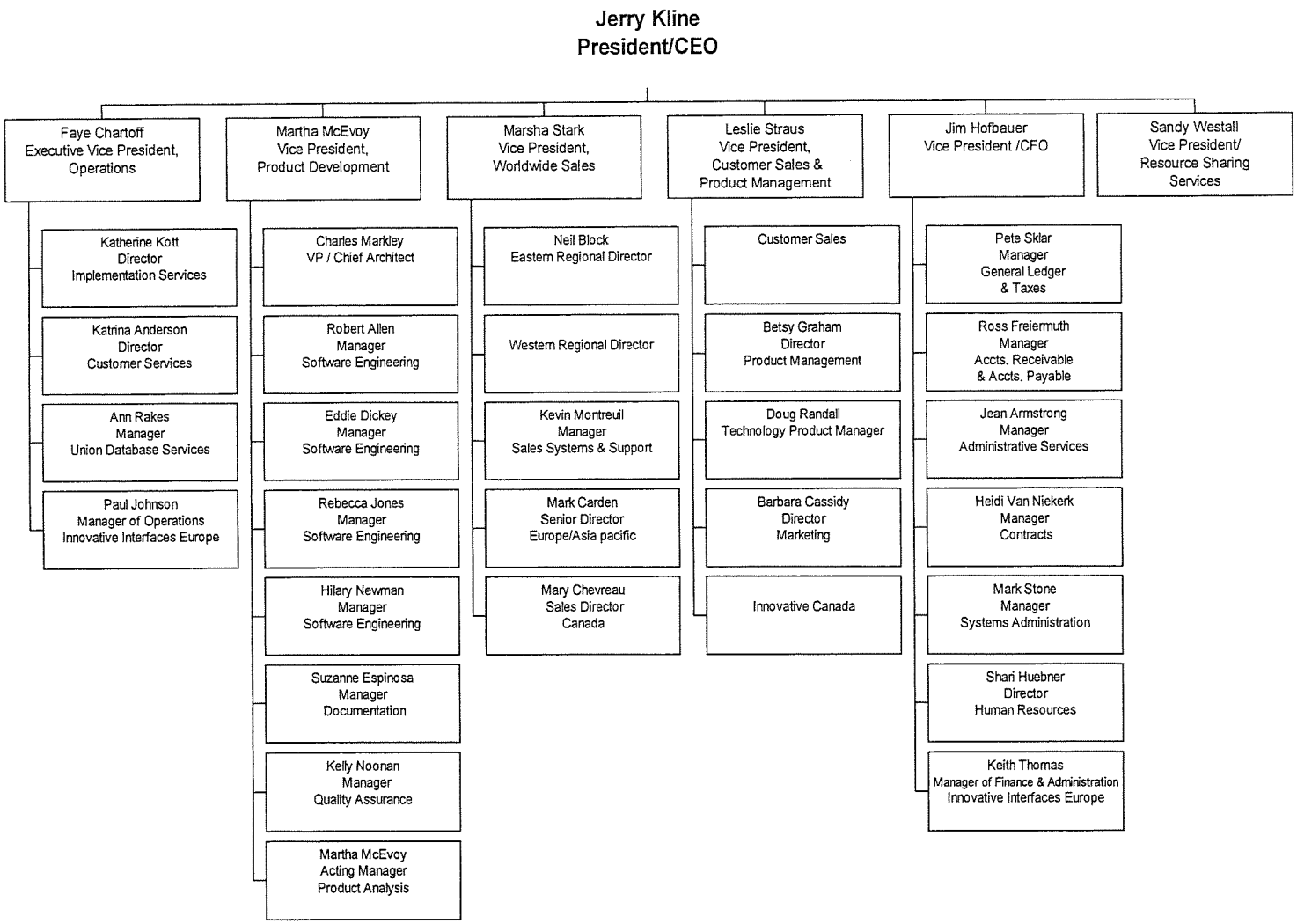
· Board of Directors / Corporate Officers ·

Gerald M. Kline, CEO/President
Stephen M. Silberstein, Executive Vice President

· Ownership ·

Innovative is privately owned by its two top officers.

Innovative Interfaces Inc. Organization Chart



Effective: March 12, 2001

INNOVATIVE INTERFACES

2001 FACT SHEET

· PEOPLE ·

As a company that was founded *by* librarians and *for* librarians, Innovative solutions are designed by people who really know and understand what libraries need. Partnership with libraries is the cornerstone of Innovative's corporate identity.

· Expertise ·

Roughly 70% of Innovative employees have a Master's degree in Library and Information Science and anywhere from 2-10 years experience working in libraries. Staff members who are not librarians have been selected for their knowledge of computer systems and programming. Innovative uses industry standard tools such as Microsoft Foundation Classes, Microsoft Visual C++, OLE and Java. Staff expertise continues to grow as new programmers are added with strong experience in OO/GUI, and existing programmers are trained through in-house and commercial training programs.

· Stability ·

Innovative has a history of stable growth rather than downsizing and continues to recruit quality staff in all departments. Innovative has been fortunate to have experienced very few losses of key personnel. In fact, many of the key people at Innovative Interfaces have been with the company since its founding days. Because staff may start in one department and subsequently be promoted to other areas in the company, Innovative's key people are functionally "cross-trained" in diverse aspects of the company's day-to-day operations.

· Full Time Employees ·

Innovative Interfaces' staff of over 200 employees is divided into approximately 60% customer support, 20% product development, and 20% administration/marketing.

Development & Documentation	40 programmers and analysts
Implementation Services	45 conversion and training specialists
Customer & Software Services	59 help desk & software support specialists
Sales and Marketing	35 sales and marketing representatives
Administrative Services	26 associates
Executive Management	10 executive officers
Total employees	200+

· Senior Management ·

Innovative has a strong senior management team in place consisting of its ten executive officers. Decisions concerning operations, policy and product development are made as a group, so the company's future does not rely solely on just one or two key individuals.

· Senior Management Profiles ·

Gerald Kline, CEO/President: Mr. Kline co-founded Innovative Interfaces in 1978 and has successfully led Innovative's growth and development from a small start-up venture to its current position as a recognized leader in the field of library automation and technology. Mr. Kline holds degrees in Electrical Engineering and Computer Science from the University of California, Berkeley. He began his career designing and developing software for the University of California Library.

Stephen Silberstein, Executive Vice President: Mr. Silberstein co-founded Innovative Interfaces and has a degree in Economics from the University of California, Berkeley plus two graduate degrees: a Master's degree in Econometrics from the University of Stockholm in Sweden and a Master's degree in Librarianship from the University of California, Berkeley. He was employed as a systems engineer by IBM for two years and then by the University of California Library for ten years as Senior Library Systems Analyst.

Faye Chartoff, Executive Vice President, Operations: Ms. Chartoff holds a Master's degree in Library Science from the University of Maryland. She has worked at several research libraries including the National Library of Medicine in the serials department, University of California, Berkeley, as the Serials Librarian, and the Syntex Corporation Information Center as the Library Director.

Jim Hofbauer, Chief Financial Officer and Vice President: Mr. Hofbauer holds a degree in Business Administration/Accounting from Kansas State University and is a Certified Public Accountant. Most recently, he served as Senior Vice President and CFO at IQXPERT, which markets component supplier management systems to Fortune 1000 companies.

Charles Markley, Vice President, Chief Product Architect: Mr. Markley holds a degree in Physics from the University of California, Berkeley. He was employed as a computer consultant by National Semiconductor for several years before joining Innovative Interfaces in 1982.

Sandra Westall, Vice President, Resource Sharing: Ms. Westall has a Master's degree in Library Science from the University of California, Berkeley. Prior to joining Innovative in 1982, she was a librarian at the University of California, Berkeley.

Leslie Straus, Vice President, Customer Sales: Ms. Straus holds a Bachelor's degree in Library Services from the University of Toronto. She has held administrative positions at York University Libraries as Head of Technical Processing, at UTLAS as Manager of Product Marketing, and at Coutts Library Services as Vice-President of Marketing.

Mark Carden, General Manager—Europe: Mr. Carden has a degree in Philosophy and Psychology from Oxford University. He began his career at Andersen Consulting and has subsequently worked in information technology and project management both as a consultant and a line manager. Before joining SLS Information Systems (the European Division of Innovative) in 1995, he was Head of Project Management at National Westminster Bank.

Marsha Stark, Vice President of Sales: Ms. Stark holds a Bachelor's degree in Business from Kansas State University. Prior to Innovative, she had over twenty years corporate sales and marketing experience working at Digital Equipment Corporation and Sun Microsystems.

Martha McEvoy, Vice President, Product Development: Ms. McEvoy has been involved in management of Innovative's software development efforts since 1988. She has a Bachelor's degree in architecture from the University of California, Berkeley. Prior to joining Innovative, Martha worked as a developer of architectural software.

INNOVATIVE INTERFACES

2001 FACT SHEET

· FINANCIAL PROFILE ·

· Financially conservative ·

Since its founding in 1978, Innovative Interfaces has been conservatively managed. As a result of its controlled growth and savvy fiscal management, Innovative has always operated profitably. Innovative's management team is dedicated to keeping Innovative a privately owned and financially vibrant corporation.

· Controlled growth ·

Innovative has no significant long-term debt and virtually no short-term debt.

· Stability ·

Innovative Interfaces is profitable each quarter and each year. There have never been layoffs, and turnover is minimal. The average tenure of management staff is 7 years.

· Bank reference ·

Stephen C. Bellicini, Senior Vice President & Manager,
San Francisco Regional Commercial Banking Office
California Bank and Trust
465 California Street, 1st Floor
San Francisco, CA 94104
415-875-1445

· Dun and Bradstreet number ·

03-267-7213
Rating is excellent.

· OEM partners ·

Compaq/Digital

· Gross sales for the previous seven years ·

1992: $35,000,000
1993: $35,000,000
1994: $45,000,000
1995: $60,000,000
1996: $60,000,000
1997: $60,000,000
1998: $67,000,000

· Official Financial Statements ·

Because Innovative is a privately held firm, the company's official financial information is confidential. Innovative has long held the position as the most financially viable company in the library automation industry and is profitable each quarter and each year. Innovative will, upon the Library's signing of a confidentiality statement, provide the company's current confidential financial statements for the Library to review.

INNOVATIVE INTERFACES

2001 FACT SHEET

· TECHNICAL ENVIRONMENT ·

· Server Software ·

Innovative's Millennium server operates under UNIX, and the application code is written in C/C++. Millennium is not dependent on any third-party DBMS, making it the most portable system currently on the market.

· Client Software ·

Character-based interface: Any microcomputer or workstation may be connected to the character-based interface. Millennium can accommodate microcomputers (including Macintosh workstations) connecting to the system via VT100/VT220 terminal emulation. A desktop computer can be used as a workstation connected via Ethernet TCP/IP or dial-in modem.

Graphical interface: GUI clients are available for PCs running Windows 95/98/NT. Best performance will be achieved if the PC is equipped with a Pentium II or higher processor and 64-128 MB of RAM, although client software will run with a minimum of 486 processor and 4 MB of hard disk space. An interface card in the PC to connect to an Ethernet network, allowing access to the Millennium server using TCP/IP is required. For a Windows-based interface, the Windows Server Program software must be installed on the Library's Millennium server.

Web interface: For Web-based interfaces, Millennium's WebServer software is installed on the server. No additional server hardware is required. WebServer does not require a proprietary client and can be accessed by any standard browser such as MS Internet Explorer, Netscape, or similar client program running on UNIX, Windows or other operating systems.

· Networking ·

Millennium connects to any network that supports Ethernet TCP/IP protocols. Other network structures (e.g., dial up, X25, ATM, FDDI, etc.) may be bridged or switched to Ethernet TCP/IP. According to statistics published by Hytelnet[1], the widely-used database of library catalogs which can be accessed over the Internet (http://library.usask.ca/hytelnet), more than twice as many Innovative libraries -- 408 at the time of the report -- are connected to the Internet than are connected through any other system. Similarly, there are more libraries using Innovative's Z39.50 (as well as the Web) than libraries using similar products from other library automation companies.

[1] Source, September 27, 1996: http://library.usask.ca/hytelnet

· Z39.50 Client/Server ·

One of the most important standards of client-server computing for the library and information world today is the Z39.50 protocol. Millennium's fully functional Z39.50 Client interface allows users accessing other library systems (e.g., OCLC, NOTIS, DRA, MELVYL and others) to conduct their searches using the familiar Millennium search menus and displays. Innovative's Z39.50 Client is also used extensively within the Cataloging module and the Interlibrary Loan module. Innovative's Z39.50 Client program does not require PCs or special workstations in order to operate; the Library does not have to acquire any additional hardware. Any connected device can take advantage of the client software. Innovative's Z39.50 server program provides access from the Millennium system to any library using other Z39.50 clients.

· Standards ·

Innovative Interfaces is a voting member of NISO and an active member of the UNICODE consortium and NAILLDD. Millennium complies with current NISO/ISO, EDI, and MARC standards where they have been defined and are in use in either the computer industry or in the library community. Innovative is fully committed to following standards where they exist and has supported the full MARC format since the company's founding in 1978 when it developed an interface to OCLC.

· Y2K Compliance ·

Questions and concerns regarding the Year 2000 problem have dominated the software industry. Simply put, the problem with most software products is that they store a year value only as a two-digit field, instead of as a four-digit field. Millennium is based on the UNIX timestamp system, which stores dates as the number of seconds that have elapsed from the date UNIX timestamps started (January 1, 1970, at 00:00:00 GMT), rather than as a two-digit field -- thus averting potential problems. The transition from midnight on December 31, 1999, to January 1, 2000, and beyond has no special significance to the UNIX timestamp, meaning that the mechanism for time and date in Millennium supports the transition to the year 2000 without difficulty.

The Product Development Department of Innovative Interfaces has conducted extensive tests to demonstrate that Millennium is Year 2000-compliant. The Millennium system supports continuous operation up to and through the transition from midnight on December 31, 1999 to January 1, 2000, including leap years and beyond. Through ongoing development, review, revision, and enhancement by analysts and programmers, Innovative Interfaces has designed its software to account for the 21st century.

The Compaq/Digital Alpha hardware operating system needed to be Year 2000 compliant is OS 4.0D. Starting January 1, 1999, Innovative Interfaces will be contacting all sites that do not yet have this release level, to discuss and plan migration options Innovative is offering. Although extensive testing has been performed by Innovative Interfaces, in the unlikely event that additional problems are encountered, Innovative Interface's standard maintenance and support agreement will cover any such eventuality.

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· HARDWARE ENVIRONMENT ·

Millennium is a truly open, integrated system designed to enable libraries to maximize the use of existing hardware without having to re-invest heavily in new configurations. Hardware may be procured from third-party suppliers of the Library's choice or directly from Innovative Interfaces.

· Central Site Server ·

Recommended Millennium hardware platforms include:

- Compaq/Digital Alpha
  Systems based on the Alpha chip.
  Digital UNIX (Alpha) operating system, version 4.0d or TruUNIX 64.

- Hewlett Packard
  HP9000/8xx series (RISC-based).
  HP/UX operating system, version 10.20.

- IBM
  RS6000 series (RISC-based).
  AIX operating system, version 4.32.

- Sun
  Sun SPARCstation and SPARCserver series (RISC-based).
  Solaris version 2.5.1 or 2.6.

· Peripherals ·

All standard printers and scanning devices are compatible with Millennium.

· Client Devices ·

Character-based interface: Millennium can accommodate any microcomputer (including Macintosh workstations) connecting to the character-based interface via VT100/VT220 terminal emulation. The Library should have no difficulty in using existing PCs and workstations to connect to the character-based INNOPAC.

Graphical interface: Best performance will be achieved if the PC is equipped with a Pentium II or higher processor and 64-128 MB of RAM, although client software will run with a minimum of 486 processor and 4 MB of hard disk space. An interface card in the PC to connect to an Ethernet network, allowing access to the Millennium server using TCP/IP is required. The PC must be winsock compliant. Microsoft Windows 95/98/NT may be used with INNOPAC for Windows, the Windows GUI client for the Millennium system.

Cataloging Workstation for Windows: This GUI client for the cataloging module runs on Windows 95/98/NT. Recommended minimum hardware requirements are:

- PC with Pentium processor or better
- 16 MB memory
- Display resolution 1024 x 768
- 9 MB disk
- Connection to Millennium server via TCP/IP network

Web-based interface: Any device -- including network PCs -- that can connect to the system via a standard browser such as MS Internet Explorer or Netscape may be used. For PC workstations running the Java-based modules, Innovative recommends a configuration with at least a 266 MHz processor and 48 to 64 MB RAM.

Java-based interface: For Circulation, Serials, Acquisitions and any remaining Java-based staff clients, Innovative recommends the following minimum desktop platform characteristics:

- Windows 95/98/NT
- PC with Pentium II 266 MHz processor or better
- 128 MB memory
- Display resolution 1024 x 768
- Connection to Millennium server via TCP/IP network

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· IMPLEMENTATION SERVICES ·

Approximately 20% of Innovative's staff is devoted to Implementation Services. As soon as the Library's contract is signed, Innovative's Manager of Implementation Services contacts the Library and introduces the implementation team consisting of three people: a Project Manager who oversees the entire project, an experienced Implementation Consultant who advises staff on the profiling and loading of its database, and a Training Consultant who works on-site to train staff and answer post-installation questions.

· Database Conversion ·

Bibliographic records and authority records in the MARC communications format can be readily loaded into Millennium. Item records are usually created as part of the bibliographic database load. If records cannot be provided to Innovative in MARC format, they will need to be converted, either by the Library, by a third party, or by subcontracting these services through Innovative. Additional data (e.g., patron records, circulation transactions, acquisitions files, serials files) can also be loaded if supplied as ASCII text, unblocked 80 column punched card images, or other approved flat file format. Innovative will construct the Millennium database from these machine-readable records which the Library provides on tape, disk or via FTP.

· Electronic Documentation ·

Innovative's electronic documentation, the Windows *Millennium User Manual*, is designed to run on Windows 95/98/NT and is available on CD-ROM. The Windows documentation supports many capabilities such as:

- Sophisticated keyword searching of the entire *Millennium User Manual*.
- Direct access to information from an expandable/collapsible table of contents.
- Hypertext jump links to related topics.
- Ability to copy information from the *Millennium User Manual* and paste it into other Windows applications (e.g., word processing).
- Ability to print selected portions of the manual.
- Creation of "shadow" files by the Library to reflect local policies and procedures.

· The TestPAC Database ·

Before a full database load is attempted, Innovative creates a "TestPAC" of approximately 20,000 records loaded into Millennium. The Library uses this TestPAC to evaluate whether the agreed-upon load specifications have been met. Once the Library has determined its profile parameters and delivered this information to Innovative, Innovative requires approximately six weeks to create the Library's TestPAC database, depending on a number of variables such as the extent of customization necessary (if any) and the complexity of the Library's data. Innovative technicians configure the software to the Library's specifications, thoroughly testing and troubleshooting all functions before completing the TestPAC database. The Library determines if records are being loaded according to the agreed specifications and, if necessary, Innovative makes the required adjustments and re-builds the TestPAC.

· A STEP-BY-STEP GUIDE TO THE MILLENNIUM IMPLEMENTATION PROCESS ·

The following represents a general overview of the implementation process. Rather than a specific blueprint, this simply illustrates the steps along the way and is intended as a launching point for further discussions to uncover each library's specific needs. Actual stages will vary from library to library depending on what software/hardware/services are acquired. An exact time line of tasks, responsibilities, and associated dates is mutually agreed upon and incorporated into the Library's contract.

- Sign Contract
- Windows *Millennium User Manual* documentation, *Getting Started* manual, and installation profile questionnaire sent to Library.
- Discussions between Innovative and the Library to finalize profiling and parameters.
- Test database (TestPAC) of 20,000 bibliographic, authority, and patron records sent to Innovative.
- Profile specifications and parameters delivered to Innovative
- Library's hardware delivered and installed
- System connected to Internet.
- Testing of hardware and operating system software commences.
- Hardware and operating system accepted.
- Application (Millennium) software loading commences.
- Test database (TestPAC) load commences.
- Training Stage 1: TestPAC, Profiling, System Maintenance
- Testing of TestPAC commences.
- Changes to profile submitted by Library.
- Changes to profile completed by Innovative.
- TestPAC acceptance.
- Complete file of bibliographic, authority, item, and patron records made available to Innovative.
- System prepared for full database load.
- Database load of full bibliographic, authority, and item database commences
- Training Stage 2: OPAC and Cataloging.
- System preparations and final testing completed by Innovative.
- System acceptance testing commences.
- Training Stage 3: Circulation
- Gap-tape for bibliographic records loaded.
- OPAC and Cataloging go live.
- Training Stage 4: Acquisitions and Serials
- Patron database loaded.
- Circulation transaction tape loaded.
- Circulation, Materials Booking, Reserve Room go live.
- Acquisitions and Serials go live.
- System Acceptance.

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· TRAINING ·

Innovative Interfaces provides customized on-site training with hands-on access to the Library's own database, using the products, profiling, and parameters unique to each library.

· Staff Expertise ·

Every Training Consultant is required to have a Master's degree in Library and Information Science in addition to library experience. Most Training Consultants have actually worked in libraries that use Innovative's system. Before being sent out in the field, a new Training Consultant receives intensive in-house training covering every aspect of system functionality. Training Consultants periodically receive additional training whenever new products and software versions are released.

· Ongoing Training ·

Millennium's ease of use, combined with Innovative's hands-on "train the trainer" approach, and a policy of unlimited access to comprehensive help-desk services when questions do arise means that formal ongoing training is simply not necessary. Innovative routinely offers workshops and seminars at library conferences and User Group meetings. If the Library wishes to videotape or record the sessions for later review, this can be arranged with the trainer. Additional training can be acquired should the need arise.

· Training Schedule ·

Training is conducted as part of the implementation process on a module-by-module basis. This usually includes several trips to the Library, as installation of each module is complete and the Library is ready to move on to the next phase of their automation project. An exact schedule is worked out between the Library and its Implementation Services team.

· Who Attends Training Sessions ·

Training sessions are usually limited to eight people, although the actual number may be negotiated with the trainer. The Library is responsible for selecting staff to receive training. Staff of different levels -- from administrators to librarians to support staff -- may attend the on-site training. In many cases, these people later act as in-house trainers for the rest of your staff.

· Training Outline ·

INTRODUCTION
- Basic design and theory of use
- Use of peripherals
- Use of menu-driven system
- Structure and content of records

PATRON ACCESS MODULE
- Types of indexes
- Search results: singular, multiple, no-hit
- Displays of different types of records
- Redirecting searches
- Using cross references to redirect searches
- Limiting multiple-hit search results
- Keyword searching
- Library information screens
- Connecting to other systems

MANAGEMENT INFORMATION & THE REPORT GENERATOR
- Information about the system
- Creating lists of records and specialized subsets of the database
- Creating statistical reports
- Analyzing patron searches
- View patron suggestions from on-line suggestion box

SYSTEM MAINTENANCE
- Backing up the system data to tape
- Maintaining the Password file
- Maintaining system codes
- Hardware details
- Loading raw MARC files

CATALOGING MODULE
- Keying new Bibliographic records
- Downloading records from bibliographic utility
- Redirecting searches; using same capabilities as found in the patron access mode
- Updating and maintaining records
- Deleting records from the database

AUTHORITY CONTROL MODULE
- Keying new Authority records
- Updating Authority records
- Catalog maintenance reports
- Global updates to headings
- Deleting Authority records from the system

CIRCULATION MODULE
- Circulation parameters
- Patron records
- Circulation Item records
- Deleting Item records from the system
- Updating Item records
- Checking out and checking in items
- Due date
- Overdues and notices
- Renewals
- Fines
- Reserve room
- Creating and using lists of records

ACQUISITIONS MODULE
- Placing orders and encumbering funds
- Maintaining the Vendor File
- Financial functions
- Downloading from bibliographic utility
- Claiming/canceling orders
- Advanced retrieval techniques

SERIALS MODULE
- Creating Check-in records
- Checking in serial issues
- Maintaining Check-in records
- Bibliographic records for serials
- Routing functions
- Check-in labels
- Claiming issues
- Binding
- Special lists of serials

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· CUSTOMER SERVICE AND SUPPORT ·

Innovative maintains a help desk which customers may contact via e-mail, fax or (in North America) a toll-free phone number. Innovative does not limit the number of service calls which may be placed. Over 90 staff members are devoted to customer support, including over 40 implementation and training specialists and over 50 help desk & software support specialists.

· Help Desk Hours ·

Customers may now reach the help desk 24 hours a day, 7 days a week. The help desk may be reached via 800 number, fax, e-mail and the World Wide Web.

· Maintenance Log ·

Web-based access to Innovative customer services is available via CSDirect. CSDirect makes customer support information and features more flexible and accessible to libraries, allowing them to optimize the available resources. By logging in to CSDirect using the Library's confidential access code, users gain access to the following functions:

- View Open Calls: allows the Library to review its current open calls and to contact easily and directly the Innovative staff that owns the call.
- Open A Call: provides the Library with an alternative option to telephone or e-mail communication with our Help Desk. The descriptive drop-down menus will guide the user through a series of questions essential to a timely resolution of the Library's call.
- FAQs: features all previously printed Frequently Asked Questions as well as new resources.
- CSDirect Profile: describes many of our basic services and provides instructions to optimize our partnership.
- Customer Survey: gives the Library an opportunity to rate and describe interactions with us.
- User Group Info: connects the Library directly to Millennium resources administered by its Innovative Users Group.
- Tutorials: intended as supplemental learning tools to aid in the learning and understanding of various parts of the system. They are designed around new products to address identified user needs.
- Release Notes Page: provides the Library with important information about current software releases, including Self-Upgrade Instructions, Final Enhancements documentation and other related issues.

· Help Desk Staff ·

Most of the staff in Innovative's Customer Services Department have a Master's degree in Library and Information Science as well as 2-10 years experience working in libraries. Those few who are not librarians have been selected for their knowledge of computer systems, programming and networking. All Help Desk Specialists are experienced in providing a number of extensive trouble-shooting procedures via dial-in diagnostics over the Internet, which result in correction of the vast majority of problems within 24 hours.

· Remote Diagnostics via the Internet ·

Innovative Interfaces maintains telephone and fax numbers, an e-mail address and a Web page for all customer calls. Should the Library experience any problems with its system, it may contact Innovative directly for service. As the request is answered (within four hours of being logged), the Help Desk Specialist will e-mail or speak directly with the Library and then perform a remote diagnostic of the Library's system via the Internet or dial up modem in order to locate and/or recreate the problem and to construct the best environment for problem resolution.

· Response Time ·

Innovative's standard policy is to resolve all calls to the help desk immediately. Due to special diagnostic programs, which automatically notify Innovative of developing problems, a growing number of issues are resolved prior to the Library realizing such problems exist. If for some reason the call cannot be handled immediately, Innovative's policy requires a callback confirmation to the customer within four hours or less. The majority of customer calls are satisfactorily resolved within much less than 24 hours.

· Problem Resolution ·

The Help Desk documents resolution of a majority of their calls within the same business day, if not on the first call. Of the small percentage of calls not resolved within one day, the majority are resolved within one week. In rare cases, a problem may take longer to resolve. Internal policy requires regular status reports with the Help Desk Manager on any outstanding inquiry older than two weeks. A Team Leader is also assigned and is responsible for insuring that the Help Desk is meeting each library's service needs.

· Software Maintenance Policy ·

Innovative Interfaces warrants all software for a period as specified in the Library's Price Quotation. All software fixes and diagnostics performed after the initial warranty period shall be provided for under the terms of the standard monthly maintenance agreement between Innovative and the Library.

· Hardware Maintenance Policy ·

In libraries which acquire hardware from Innovative and a problem is found to be within the Innovative-supplied hardware, Innovative will provide replacement parts and on-site service as needed to rectify the problem. Replacements for central site hardware are shipped for next-day delivery. If the faulty component is not part of the Library's maintenance contract with Innovative, the technician will immediately notify the Library of any findings and advise the Library to contact their hardware provider.

For central site (CPU) hardware service, Innovative will provide maintenance via remote diagnostics and, as necessary, will send an Innovative technician to perform service on-site at the Library. In addition, when immediate service is required, Innovative will contact the Compaq/Digital service center nearest to the Library and coordinate onsite service directly with Compaq/Digital. In all cases, Innovative's goal is to provide service within 24 hours of problem diagnosis.

· Warranty and Maintenance ·

Innovative warrants all hardware and software supplied to the Library for a period as specified in its Price Quotation under the terms and conditions as mutually agreed upon between Innovative and the Library. A standard maintenance agreement is included in the sample contract provided with this response.

· Contract Considerations ·

Because of the large and complex nature of library automation procurements -- and to allow for the unique requirements of each library -- Innovative recommends that all contract terms be examined, for both applicability and wording, should Innovative be selected as the supplier. Innovative has always found that open dialogue is highly beneficial in clarifying areas of difference that may be otherwise obscured. Innovative believes that reaching mutually agreeable contract terms is in the best interest of both parties and anticipates no problem in satisfying the Library's specific contractual objectives.

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· RESEARCH AND DEVELOPMENT ·

Innovative's strategic development continues to focus on providing the best Open System available, delivering state-of the-art networking, standards-compliant functionality, and electronic information management in a modular, fully-integrated framework. Innovative believes that libraries need a range of choices in custom-designing a comprehensive information resource solution that meets their own unique needs, in the context of both their end-user community and the greater global environment.

· Annual Budget for Research and Development ·

In excess of US$1,000,000 per year

· Staff Expertise ·

With 40 programmers and product development technicians at the end 1998, approximately 20% of Innovative's staff is devoted exclusively to software development. Over 50% of Innovative's programming and system analysis staff are working on Object Oriented Graphical User Interfaces. Innovative uses industry standard tools such as Microsoft Foundation Classes, Microsoft Visual C++, OLE and Java. Staff expertise continues to grow as new programmers are added with strong experience in OO/GUI and existing programmers are trained through in-house and commercial training programs.

· Long-Term Development Plans ·

Continued research and development plans include relevance ranking for full text searching, advanced electronic document and imaging management, and expanding the current suite of APIs.

· Short-Term Development Plans ·

Innovative's plans for Millennium include incorporating Java applets for all system modules, as initially implemented with Management Information Reports in 1996. Innovative will complete its GUI client product line with the remaining modules as follows:

Innovative's currently available Millennium modules include:

- Web-based OPAC (browser-based, Netscape or Microsoft Internet Explorer, in production since 1996)
- Management Information Reports (browser-based, in production since 1996)
- Circulation (Java-based, released on schedule in Summer 1998 in production)
- Serials (Java-based, released on schedule in Winter 1998, in production)
- Acquisitions (Java-based, released on schedule in Summer 1999, in field testing in Autumn 1999, expected procuction release Q2, 2000)

Innovative's developing Millennium modules include:

- Cataloging (Java-based, scheduled for 2000; Windows client currently available and in production)
- The remaining modules (Interlibrary Loan, Materials Booking, etc. Java-based, scheduled for 2000)

Software Release History Over Past 6 Years

Release 8	August 1993
Release 8.1	January 1994
Release 9	August 1994
Release 9.1	September 1995
Release 10	August 1996
Release 10.1	January 1997
Release 11	August 1997
Release 12	September 1998

Installations by Release Version

Release 11	64 sites
Release 10	12 sites
Release 9	1 sites

Previous versions still supported: Release 11, Release 10.1, Release 10, Release 9.1, Release 9.0, Release 8.1, Release 8.

· Release Schedule ·

Software enhancements are issued approximately every 6-10 months or as needed.

· Release Self-Installation ·

Libraries may easily self-install new software releases by simply selecting a menu option which automatically proceeds with the installation of the new software either by loading the necessary files from a tape sent by Innovative or automatically transferring the files over the Internet and then loading them. Upgrades may be self-installed at a time convenient to the Library and may require 2-4 hours of downtime. Technical help is available 24-hours a day, 7 days a week, should assistance with self-installation be necessary. New release versions and unlimited access to help desk services are provided at no additional charge as part of the Library's ongoing maintenance program.

· Release Beta-testing ·

New releases are thoroughly tested before being issued to customers in general release. Before a new release even goes into Beta testing, extensive in-house tests are conducted with rigorous quality assurance by research and development technicians and engineers. Innovative then conducts extensive testing with a team of Beta site libraries over a period of several months. Only after the enhancements have proven to be bug-free in all the Beta sites is the new version made available in general release.

· How New Releases Are Developed ·

Enhancement suggestions and requests are regularly collected and compiled by the Innovative User Group for presentation to Innovative's Development Department. Libraries may also make enhancement requests directly to Innovative at any time and an e-mail address is maintained exclusively for this purpose (enhance@iii.com). All enhancement requests are reviewed individually and added to the next system release, as appropriate. Of course, not each and every enhancement request can be accepted, but Innovative has a strong reputation for the fact that almost all system enhancements are implemented in collaboration with customers.

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· MILLENNIUM PRODUCT OVERVIEW ·

Millennium is an evolutionary system each library can implement at its own pace. Designed for a diverse range of technological environments -- from character-based to GUI, from Web to SQL -- Millennium is a fully integrated suite of products suitable for all sizes and types of libraries. Millennium continues the development that began in 1996 of "thin" clients (e.g., Netscape, Internet Explorer, etc.) incorporating Java applets for all modules. Designed as a truly open, modular, and fully integrated system, Millennium maximizes each library's flexibility to customize an exact blend of products and features which fit its own unique needs -- without extensive reinvestment in hardware.

CATALOGING PRODUCTS:

- Cataloging Workstation for Windows
- Web / Java management reports
- Authority Control, including online host service to Library of Congress Authority File
- Bibliographic interfaces (online and batch)
- Local Image database link
- Table of Contents link
- Chinese/Japanese/Korean/Thai/Arabic character display, printing, and output

OPAC PRODUCTS:

- WindowPAC OPAC for Windows
- WebPAC OPAC for Web (including full URL linking)
- Gateway / Z39.50
- Encyclopedia Britannica link
- Union Catalog / patron initiated borrowing
- Events Database
- Community/Campus Information Database
- Archival Database
- Journal Citation Reference Database (including full text)
- Multi-lingual menus
- KidsOnline: Children's Catalog interface
- INN-View Online Reference Database Service (including full text)

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5850 Shellmound • Emeryville, CA 94608 • 800-878-6600 • Fax 510-450-6350 • Email info@iii.com • www.iii.com

CIRCULATION PRODUCTS:

- Graphical User Interface
- Electronic Reserves (including full text, copyright management, and document delivery)
- Patron self-service (including self checkout, holds, renewals, ILL requests, purchase requests, and interface to 3M)
- Inventory Control
- Materials Booking
- E-mail and telephone notification
- APIs to third-party user databases

ACQUISITIONS PRODUCTS:

- Graphical User Interface
- Electronic ordering via the Internet
- Electronic invoices for approval plan and serial vendors
- APIs to third party accounting systems
- Web / Java

SERIALS PRODUCTS:

- Graphical User Interface
- Electronic claiming using EDI X.12 via the Internet
- SISAC check-in
- Web / Java

INTER-LIBRARY LOAN PRODUCTS:

- Graphical User Interface
- Patron-initiated requests
- Send electronic ILL requests to OCLC, British Library ARTEmail, and other libraries via e-mail
- Web / Java*

Vendor Response

Cover Letter:

RESPONSE: Enclosed with this proposal.

Vendor Profile:

RESPONSE:

Senior Management Profiles:

Gerald Kline, CEO/President: Mr. Kline co-founded Innovative Interfaces in 1978 and has successfully led Innovative's growth and development from a small start-up venture to its current position as a recognized leader in the field of library automation and technology. Mr. Kline holds degrees in Electrical Engineering and Computer Science from the University of California, Berkeley. He began his career designing and developing software for the University of California Library.

Faye Chartoff, Executive Vice President, Operations: Ms. Chartoff holds a Master's degree in Library Science from the University of Maryland. She has worked at several research libraries including the National Library of Medicine in the serials department, University of California, Berkeley, as the Serials Librarian, and the Syntex Corporation Information Center as the Library Director.

Charles Markley, Vice President, Development: Mr. Markley holds a degree in Physics from the University of California, Berkeley. He was employed as a computer consultant by National Semiconductor for several years before joining Innovative Interfaces in 1982.

Sandra Westall, Vice President and Director of Database Services: Ms. Westall has a Master's degree in Library Science from the University of California, Berkeley. For several years she directed the automation of the Cataloging Department of the University of California, Berkeley Library.

Leslie Straus, Vice President, Customer Sales: Ms. Straus holds a Bachelor's degree in Library Services from the University of Toronto. She has held administrative positions at York University Libraries as Head of Technical Processing, at UTLAS as Manager of Product Marketing, and at Coutts Library Services as Vice-President of Marketing.

Marsha Stark, Vice President of Sales: Ms. Stark holds a Bachelor's degree in Business from Kansas State University. Prior to Innovative, she had over twenty years corporate sales and marketing experience working at Digital Equipment Corporation and Sun Microsystems.

Vendor's Financial Stability

Because Innovative Interfaces, Inc., is a privately held firm, its financial records are confidential. However, Innovative Interfaces is the most financially viable company in the library automation business, and upon selection of the Millennium system and the Library's signing of a confidentiality agreement, Innovative will provide the Library with a copy of the most recent audited financial statement for review by the Library. The Library may, it if desires, contact the company's bankers and review the most recent Dun and Bradstreet report for further confirmation of the company's excellent financial standing.

Bank reference for Innovative Interfaces, Inc., is:

Stephen C. Bellicini, Senior Vice President & Manager,
San Francisco Regional Commercial Banking Office
California Bank and Trust
465 California Street, 1st Floor
San Francisco, CA 94104
415-875-1445

Dun and Bradstreet number for Innovative Interfaces, Inc., is: 03-267-7213; rating is "excellent." The Library may receive further financial data under special arrangement with Innovative Interfaces.

Judgments or Lawsuits

There are no outstanding judgments or lawsuits pending against Innovative.

Financially Conservative

Since its founding in 1978, Innovative Interfaces has been conservatively managed and as a result of its controlled growth and savvy fiscal management, Innovative has always operated profitably. Innovative's management team is dedicated to keeping Innovative a privately-owned and financially vibrant corporation.

Controlled Growth

Innovative has no significant long-term debt and virtually no short-term debt.

Stability

Innovative Interfaces is profitable each quarter and each year. There have never been layoffs, and turnover is minimal. The average tenure of management staff is 7 years.

Gross sales for the previous seven years

1992: $30-35,000,000
1993: $30-35,000,000
1994: $40-45,000,000
1995: $55-60,000,000
1996: $55-60,000,000

1997: $55-60,000,000
1998: $67,000,000

Contract Performance
Innovative Interfaces has experienced no terminations for default.

Please refer to the Confidentiality Agreement letter, addressed to Patricia M. Guise, enclosed in the Standard Contracts section of this proposal. Innovative Interfaces, Inc. faces no outstanding litigation. Also, please refer to the Power of Partnership document enclosed with this response.

System Growth & Conversion of Data

RESPONSE: The CPU proposed herein is expandable and upgradable and should easily accommodate the Library's growth pattern. Millennium requires little or no downtime for expansion and upgrade to accommodate new workstations, functions, activity paths, etc. Most Millennium libraries expand their systems according to changes in their user population through the addition of memory and/or disk storage, records, functions and simultaneous users. Innovative prefers to meet each library's growth demands individually first by proposing a configuration that can be expanded readily and easily, and second by installing new functions, adding new users, and adding memory or disk storage as the Library's needs arise.

Because Millennium runs on industry standard hardware, on an industry standard operating system, its growth potential is outstanding. The system proposed here has been configured to meet both the present and future needs of the library. Innovative Interfaces expects each library's requirements to grow and change over the years and purposely designs each system to be responsive to those needs.

MIGRATION OVERVIEW

Innovative takes a team approach to serving the needs of each Millennium library. As soon as the Library's contract with Innovative is signed, Innovative's Project Manager will call and send a letter introducing the team assigned to work with the Library. The process and timing of the Library's implementation, installation and training is explained in detail. One of Innovative's experienced Implementation Consultants will be assigned to advise the Library and guide Library staff through the implementation of the system. The Implementation Consultant will provide step-by-step details on how to prepare the Library's data to look the way it should, getting the tape load ready, etc.

Innovative's Manager of Implementation Services will indicate which experienced Training Consultant will be assigned to work directly with the Library to train the staff in its use of the system, and answer all post-installation questions.

After the Millennium system is installed and training is completed, Innovative provides a toll-free "help desk" staffed by both library services and technical services personnel to answer any and all questions the staff might have. As each call comes in to a help desk, it is logged into Innovative's online tracking system. If the person on the desk cannot resolve the problem immediately, he or she assigns it to the staff member with the appropriate expertise and background to answer the question, provide the service or, fix the problem. We don't expect the Library to rely on the knowledge of just one or two people. Rather, we draw on the expertise and talents of many people who are devoted entirely to providing services to Millennium libraries.

Most of the people supporting the implementation process and the application software in Innovative's Operations Division have a Masters in Library Science as well as 2-10 years experience working in libraries. Those who are not librarians have skills related to hardware, operating system and networking specialties.

Full support is given during the entire migration project, including installation, consultancy and training. As a company that devotes well over half of its staff to customer service, Innovative feels this is the best approach.

FILE LOADING AND MIGRATION

Innovative Interfaces has already migrated data from many library automation systems and created Millennium databases for libraries operating at various automation levels. Standard input formats exist for the basic data, and records can be exported either in these formats or converted to them by the Library, a third-party supplier or Innovative. Custom data conversion services are available to address more complex issues.

Innovative, with its extensive experience in migration, will be happy to offer advice and help. The Library is encouraged to contact existing Millennium customers for their input. Libraries that have been through a system migration are often the best source of advice and reassurance.

The following is intended to provide general information about the migration of existing machine readable data and points that need to be considered. It should not be taken as a specific plan for the Library but rather as an overview of the Millennium database building process in general terms.

TIME CONSIDERATIONS

The time required for converting each database can be broken down into the following components:

1. **Time to provide specifications and extract sample records (sample size = 20,000 records).**
2. **Time to develop and test system profiling and data mapping and loading.**

3. **Time to examine and approve the conversion of sample records.**
4. **Time to revise specifications/profiles, if needed.**
5. **Time to load and index the full database.**

The only items strictly under Innovative's control are #2 and #5. Innovative estimates that records can load and index (under normal circumstances on a suitably powerful machine dedicated to this purpose) at the rate of about 150,000 records per 24 hour day (6,250 per hour). This load rate assumes that no matching against the existing database is being done at the same time as records are being loaded.

BIBLIOGRAPHIC AND AUTHORITY RECORDS

Bibliographic and authority records output in the MARC communications format can be readily loaded into Millennium. If records cannot be output in MARC format, they will need to be converted, either by the Library or by a third-party vendor. Innovative may subcontract for conversion services and authority control at the Library's request.

ITEM RECORDS

Item records are usually created as part of the bibliographic database load. There are various methods for creating item information, but Millennium typically takes item information from the following MARC fields:

- **The 940 field**
  Used for data that is common to all items attached to a single bibliographic record, e.g., call number, location, etc.

- **The 945 field**
  Used for data that is item specific, e.g., bar code number, status, note, etc. The 945 field is repeatable for each item linked to a bibliographic record.

PATRON RECORDS

Transfer of patron data is normally straightforward. Patron records from the existing system may be migrated to Millennium via tape, disk, or FTP if they can be output in an approved flat-file format.

Patron records may be loaded into the Library's Millennium provided they are in one of these three formats:

- **MARC-like format (unblocked and variable-length, i.e., if written on an IBM mainframe, RECFM=U)**
- **80 column punched card image format**
- **Text file**
- **Comma-delimited (dBASE)**

Regardless of the format chosen above, the data must be in ASCII (8 bit).

A fourth format is available for libraries that can transfer the patron file into a file on a PC. In that case, the Library can use the SOFTERM PC program to transfer that file (using the XMODEM protocol through the COM port on the PC) into its Millennium.

TRANSACTION RECORDS

While circulation transactions can be loaded into Millennium, the process is less straightforward. As an alternative consideration, the Library may choose to allow a period of time in which both the previous system and Millennium are in concurrent parallel operation, allowing for items previously checked out on one system to be checked in on the same system while new transactions would be conducted on Millennium.

Should the Library choose to migrate live transaction data, the following specifications are generally used by Innovative Interfaces for migrating most circulation activities.

If the Library's transaction data cannot be output in this format, Innovative Interfaces will provide assistance and consultation to determine if custom programming services can be provided to extract and migrate this information from the existing system to Millennium.

TRANSACTION DATA: CHECKOUTS

Libraries should deliver the data in an ASCII text file, with each line in the file representing a checked out item. Each line contains five data elements and end with a hard return (hex value of 0A). A colon (:) should separate each of these data elements, as follows:

1) **Transaction code..... Must be "o" for checkout**

2) **Transaction time..... Must be in PC time-stamp format yymmddhhmm**

Example: 9902281411 = Feb. 28, 1999, 2:11 p.m.

NOTE:
The transaction time (i.e., checkout date) must be earlier than the due date. This data element is mandatory. Without it, the system will fail to load check-out transactions for overdue items.

3) **Item ID number..... Item barcode number, preceded by the letter "b"**

4) **Patron ID number ..... Patron barcode number, preceded by the letter "b"**

5) **Due date..... Must be in PC time-stamp format**

Examples:
o:9208121450:b3128400003981x:b2128400000346:9208211200
o:9208121550:b31284000002714:b2128400005227:9208212200

TRANSACTION DATA: HOLDS

Libraries should deliver the data in an ASCII text file, with each line in the file representing one hold. Each line should end with a hard return (hex value of 0A). A colon (:) should separate each of these data elements. Include colons to denote space for optional elements that do not contain data, e.g., a five-element line should contain four colons even if there is no data in element 3.

1) **Patron ID number ..... Patron barcode number, preceded by the letter "b"**

2) **Item ID number ..... For item-level holds, the item barcode preceded by the letter "b"**

For title-level holds, a unique field from the bibliographic record; e.g., the old system number or an OCLC control number.

3) **Sequence in the hold queue ..... Optional data field**

4) **Date hold placed ..... Optional data field**

Must be in the date format of the Millennium system, e.g., mmddyy or ddmmyy.

5) **Date not wanted after ..... Optional data field**

Must be in the date format of the Millennium system, e.g., mmddyy or ddmmyy.

Examples – item-level holds:
b21284000002714:b3128400005227:2:04-10-99:06-10-99
b21284000002714:b3128400005227::04-10-99:

Examples – title-level holds:
b21284000009745:jgsn12345:1:04-09-97:06-03-97
b21284000002714:jgsn12345:2:04-10-97:06-10-97
b21284000002714:jgsn54321::04-10-97:

or:

b21284000009745:oocm00345678:1:31-12-98:21-01-99
b21284000002714:oocm00345678:2:15-02-99:01-03-99
b21284000002714:oocm00876543::08-12-99:

NOTES:

- **If the "sequence in the hold queue" (element 3) is not included, patrons will be placed in the hold queue in the order these transactions are loaded.**
- **If the "sequence in the hold queue" (element 3) is included, the file should be sorted first by element 2 and then by element 3.**
- **If the "date hold placed" (element 4) is not included, the date of the load will be used as a default date.**
- **If the "date not wanted after" (element 5) is not included, the system cannot automatically cancel the hold.**

- **Dates must follow the format of dates on the library's Millennium system. For example, in the US the date format would be mm-dd-yy; in the UK the date format would be dd-mm-yy.**

TRANSACTION DATA: FINES

Libraries should deliver the data in an ASCII text file, with each line in the file representing a circulation charge, either a bill or fine. Each line should end with a hard return (hex value of 0A). A colon (:) should separate each of these data elements.

1) **Patron ID number ..... Patron barcode number, preceded by the letter "b"**

2) **Total charge ..... Must be in the format XXX.XX**

3) **Reason for charge ..... Text with a maximum length of 55 characters**

This element should contain any useful information about the charge, but do not include any braced diacritic characters.

Examples:
b21284000002714:5.75:Moby Dick, due 7/1/99, returned 8/5/99
b21840100018321:12.00:Old system fines

ACQUISITIONS AND SERIALS CHECK-IN DATA

Innovative Interfaces has provided custom migration services for the transfer of order and serials check-in data from a number of systems. These successes have allowed Innovative to develop a set of specifications for migrating this complex data.

Libraries must deliver all data in MARC communications format. The bibliographic portion of the data may be brief, a minimum of the match point (previous system control number) and title information in the MARC 245.

Each order record will have its own MARC record, so it may be necessary to output duplicate bibliographic data in multiple MARC records when there are two or more orders for a single bibliographic title. It is not necessary for each order record to contain all of the specified subfields spread across all order record MARC tags. One order record will be created for each 960 field.

Licensing Issues

RESPONSE: Acknowledged

Implementation Schedule

RESPONSE: A sample timeline follows which provides a general overview of Innovative's standard recommended conversion process and the times involved. All events are keyed to date of contract signing. This is provided for illustrative purposes and is intended as a launching point for further discussions between Innovative and the Library to determine jointly the Library's specific needs. Detailed schedules will be negotiated and incorporated into the contract. Any modifications to this schedule must be mutually agreed upon by Innovative and the Library.

DATE	EVENT	RESPONSIBILITY
TBD	Contract signing	Both
Within 2 weeks of Contract Signing	Assign project team and send documentation	Innovative
	Send samples of bib/item/patron records to be loaded onto Millennium	Library
45 Days in Advance of Initial Training	Deliver data to Innovative	Library
	Deliver completed worksheets to Innovative	Library
TBD	Installation and Initial Training (If Library's database 100,000 records or fewer, the Initial Profile will include a full database load)	Innovative
	1-year warranty period begins	Innovative
Within 4 weeks of Initial Training	Profile Acceptance	Library
Approx. 30 days after Initial Training	Cataloging Training	Innovative
Approx. 30 days after Catalog training	Circulation Training	Innovative

Approx. 30 days after Circ. training	**Circulation Migration**	**Both**
Approx. 30 days after Circ. migration	**Acquisitions Training**	**Innovative**
Approx. 30 days after Acq. training	**Serials Control Training**	**Innovative**
No longer than 120 days from Profile Acceptance	**System Acceptance**	**Library**

Innovative is very flexible and will do everything possible to complete the Implementation Schedule by December 31, 2001.

Maintenance and Support Updates

RESPONSE: Innovative will provide the Library with software maintenance, enhancements, and upgrades as defined under the terms of the maintenance agreement between Innovative and the Library for as long as there is a valid maintenance agreement in place between the parties.

Software Maintenance Policy
Innovative Interfaces warrants all software for a period as specified in the Library's Price Quotation. All software fixes and diagnostics performed after the initial warranty period shall be provided for under the terms of the standard monthly maintenance agreement between Innovative and the Library.

Hardware Maintenance Policy
In libraries that acquire hardware from Innovative and a problem is found to be within the Innovative-supplied hardware, Innovative will provide replacement parts and on-site service as needed to rectify the problem. Replacements for central site (CPU) hardware are shipped for next-day delivery. If the faulty component is not part of the Library's maintenance contract with Innovative, the technician will immediately notify the Library of any findings and advise the Library to contact its hardware provider.

For central site (CPU) hardware service, Innovative will provide maintenance via remote diagnostics and, as necessary, will send an Innovative technician to perform service on-site at the Library. In addition, when immediate service is required, Innovative will contact the Sun service center nearest to the Library and coordinate on-site service directly with Sun. In all cases, Innovative's goal is to provide service within 24 hours of problem diagnosis.

Innovative's drop-ship hardware alternative is supported through a service contract with Sun. During the period that these contracts are in place, Innovative will coordinate the request for service with Sun. All service is centralized through Innovative's Help Desk. Staff will analyze the problem; if they determine it is server-related, they will dispatch the call to the appropriate service center to send a technician to the Library.

Innovative does not provide maintenance services on peripheral devices, and as such encourages the Library to procure these devices from a local vendor that is also able to supply the necessary level of maintenance. The single exception to this policy is the B321 Portable Barcode Reader, which must be purchased directly from Innovative and can be maintained by Innovative as part of the standard maintenance agreement.

Warranty And Maintenance
Innovative warrants all hardware and software supplied to the Library for a period as specified in its Price Quotation under the terms and conditions as mutually agreed upon between Innovative and the Library. A standard maintenance agreement is included in the sample contract provided with this response.

Remote Diagnostics Via The Internet
Innovative Interfaces maintains telephone and fax numbers, an e-mail address and a Web page for all customer calls. Should the Library experience any problems with its system, it may contact Innovative directly for service. As the request is answered (within 4 hours of being logged), the Help Desk Specialist will e-mail or speak directly with the Library and then perform a remote diagnostic of the Library's system via the Internet or dial up modem in order to locate and/or recreate the problem and to construct the best environment for problem resolution.

"Help-Desk" Availability:
Innovative Interfaces' help desk is available 24 hours a day, 7 days a week by toll-free telephone number, fax, email, and the World Wide Web.

Source Code and Escrow
Innovative Interfaces can place the source version of the software in escrow. However, the Library is not a party to the escrow agreement, although they are beneficiary to the agreement. Innovative will pay for the first year of the escrow, after which it is the responsibility of the Library to cover the expenses of extending the agreement. The current rate of such an escrow agreement is $200 per year. Please see Innovative's standard Escrow Agreement included with this response.

Software enhancements are issued on an annual schedule and do not require hardware modification of any kind. Libraries may self-install software upgrades by simply selecting a menu option from the Millennium System Administration menu. When this option is selected, Millennium proceeds with the installation of the new software either by loading the necessary files from a tape sent by Innovative or automatically transferring the files over the Internet and then loading them. Upgrades may be self-installed at a time convenient to the Library and may require 2-4 hours of downtime. Technical help is

available 24 hours a day should assistance with self-installation be necessary. Software enhancements and unlimited access to help desk services are provided at no additional charge as part of the Library's ongoing maintenance program.

Innovative is currently developing or testing the following Millennium modules:

- **Java-based Cataloging (in beta testing; Windows client currently available and in production)**
- **Java-based Interlibrary Loan (in beta testing)**
- **Java-based Materials Booking module (scheduled for 2001)**

File Reorganization

RESPONSE: Updates to all system files are done in real time. Millennium requires no file reorganization, overnight or otherwise, to display file updates.

Backup

RESPONSE: In order to ensure that all of the Library's data is protected from loss due to destruction of the Millennium CPU for any reason, Innovative Interfaces recommends that all the Library's data be copied ("backed up") daily. This can be done during the day while the system is in use or in scheduled, unattended mode during the night. A DAT drive is the standard supported backup device and in most cases a full backup will fit on a single DAT tape. The backup process takes approximately 20 to 40 minutes, depending on the size of the Library's database.

All backup operations are completed using the Millennium interface, no separate programs or procedures are required. No specialized staff or technical expertise is required. Staff and patrons may continue to utilize the system during the backup, although changes to records will not be committed until after the backup is complete. Complete instructions for performing a back up is provided in the Millennium User Manual.

Recovery time will vary based on the extent of the failure. "Normal" failure recovery should be less than one hour.

Should it ever be necessary to restore Library data from the backup tapes to the disk, the current state of the disk can be reconstructed from the last weekly backup of the full database and the daily transactions that have occurred since then. In addition, there is a fairly high probability that today's transaction file, while not yet copied to tape, can also be accessed to bring the system back up to the point where it suffered its catastrophic failure. The major exception to this would be if the machine were destroyed in a fire or some other such natural catastrophe.

In addition to restoring Library data, Innovative restores all Millennium software, and, for turnkey customers, the OS software for their Millennium server.

If a fire or some other such natural catastrophe were to occur that destroyed the computer in the time between full backups, Innovative would be able to restore the Library's data using the most recent full backup plus all the daily backups that had been done since that time. For example, if the last full backup had been done the previous Saturday and the last daily backup was done on Tuesday evening, and a fire occurred on Wednesday, Innovative would be able to restore all the Library's data through Tuesday evening, and the only data lost would be transactions that took place between Tuesday night and the time of the fire on Wednesday.

In order to protect against such a natural catastrophe, the backup tapes should, of course, be stored in a safe place away from the machine itself. Indeed, the tapes for the last three weeks of backups should be kept in separate places to guard against the possibility of one or more of them being damaged at the same time that the machine has been damaged.

Security

RESPONSE: The Millennium security system is designed to keep the Library's data confidential and to protect data from unauthorized changes. Millennium's security system protects Library data in three ways. The first involves where certain functions are allowed to take place, i.e., on which workstations. The second involves who is allowed to perform certain functions. The third involves logging all changes to the database in a separate log file, with the time the change was done and the workstation from which it was done and who made the change.

Limiting certain functions to taking place only on certain physical workstations goes a long way toward protecting the Library's database. For example, changes to the catalog can be limited just to workstations located in the catalog department. Thus, to alter the catalog one would first have to gain physical entry into the catalog department. Users accessing the system from outside the Library via the Internet can, of course, be limited just to inquiry of the public catalog. If Millennium is connected to a network, such as the Internet, the system will log all non-local attempts to access the system, and the Library may specify (by IP address) the services available to users as a function not only of who they are (their login) but also as a function of where they are logging in from (based on IP address).

Once it has been decided that a certain function is to be allowed at a certain workstation, the Library can then decide whether anyone can perform that function at that workstation, or whether the function is to be limited to certain, specific individuals.

Individuals are first authorized to perform protected functions when the system supervisor (or other person authorized to enter and modify system authorizations) enters their identification and a list of the functions that they are authorized to perform. Then a password for that person is entered. Anytime after that, individuals can change their own

passwords without involving their supervisor. Changing a password, however, has no effect on what functions a person is authorized to perform.

When a function has been limited to certain specific individuals, and a person then attempts to invoke that function from a workstation, they must identify themselves before they can proceed by keying their initials (or other user identification). Then, in order to confirm their identification, they must key in their own, private password. The password is not displayed on the screen when typed. If the user identification and password match and the individual is allowed to perform the function for which they have identified themselves, they are allowed to proceed; if not, they are blocked.

If the requested function involves updating the database in any way, the update is logged to a disk file called the transaction file. Each day this transaction file is copied to tape during the backup process. Using this tape, it is possible, should it ever be necessary, to reconstruct what changes were made in the database, change by change, when, by whom, and from which workstation they were done.

Millennium does not require use of a specific level of security. Millennium restricts use of some security options if they are incompatible with Innovative network functions.

The Millennium system has proven its immunity to viruses in the nearly 900 currently installed Millennium sites. Due to a highly sophisticated security system, viruses have never presented a problem to our customers. The Millennium server employs internal utilities that automatically and continuously run in the background to detect any irregularities and to safeguard against degradation of data.

Documentation

RESPONSE: Innovative's User Manuals are now Web-based. Replacing the current User Manuals on Folio Views, the new documentation debuted at ALA Midwinter 2001 with additional updates within Release 2001. The new Web-based user manuals will be installed directly on INNOPAC and Millennium systems for instant access and will also be archived in CSDirect.

Millennium's new Web-based User Manuals will automatically receive updates when the library updates or upgrades their current system to the latest Innovative software. There is no need to install any additional documentation software. Any library staff person who has access to a browser and Innovative software can view the documentation. Millennium user manuals can be accessed two ways: while running Millennium Acquisitions, Millennium Cataloging, Millennium Circulation, or Millennium Serials modules, documentation can be launched via the Help menu, or by opening a browser window and entering http://<your_server>/manual in the URL field, where <your_server> is the name of the library's Millennium server.

Innovative is constantly improving and streamlining products as well as services. The new documentation will allow Innovative customers to take full advantage of Web-based technology.

The Library will also receive access to the Web-based online document Getting Started, to aid the Library through the implementation process.

Additionally, as part of CSDirect, Innovative's Web-based customer service interface, the Library may access tutorials that are available for customers who want to learn more about a particular product or feature. Designed for both novice and experienced users, the tutorials can quickly introduce Library staff to a product or help them learn it better.

Product and feature tutorials complement onsite training and product documentation. They may be used as pre-training introductions or as post-training reinforcements. Innovative continually updates and introduces new tutorials, so Library staff is encouraged to check the page often for new information.

Tutorials are accessible with Internet Explorer and Netscape (Versions 4.0 and later); no special software is necessary.

The following tutorials are currently available:

- **Millennium Circulation Login Manager**
- **Millennium Serials Holdings**
- **Millennium Serials Login Manager**
- **Web OPAC**

Support of Other Languages

RESPONSE: Millennium's optional Foreign Language Menus module provides the ability to display Web OPAC menus in many languages, including French, Chinese, Japanese, Portuguese, Spanish, Swedish, Thai and Welsh to name a few that are already being used by libraries. This product allows the Library to set a default language for any workstation or login. The operator can also select another available language with a single keystroke.

If the Library is interested in a language that has not yet been translated, Innovative would work with the Library to provide a translation. Overall the menus are table driven; consequently, expanding the tables to accommodate new languages is a matter of translating the necessary phrases and keying the translations into the table. The design of this capability allows for easy expansion.

Screens in the Web OPAC (and other modules) can be set up to be multilingual. Operators may easily change the language of the system's messages from English to other languages. The operator simply selects the Change Language option on the greeting screen of the public catalog. The subsequent screen then displays a menu of available languages.

The Library can customize additional Help Screens within the Web OPAC by using basic HTML and inserting links within the appropriate web pages. Many of our libraries have customized a certain level of help, depending on the needs and sophistication of their users.

Brief Description of Each Module

RESPONSE: Millennium has been designed as a highly sophisticated yet easy-to-use integrated library automation system. Millennium operates from a single, integrated database of bibliographic, item, order, patron and image records providing full integration in real-time for all activity on the system. All modules, both public and staff, function together to provide a depth of functionality unequaled in the marketplace today. Technical service functions are all fully integrated into the Millennium system. All updates made to database records by authorized staff operators are reflected in real time in the Web OPAC; staff have the option to suppress any records or activities from the Web OPAC of their choice with proper login authorization. Designed as a Web-based product, Millennium allows staff to move quickly from module to module as required.

Millennium offers the following user interfaces:

- **Java-based graphical user interface for the following modules:**
  - **Cataloging**
  - **Circulation**
  - **Serials**
  - **Acquisitions**
  - **Interlibrary Loan**
  - **Management Reports and Statistics**
- **World Wide Web interface to OPAC and reference databases**
- **Z39.50 interface to other databases**
- **Telnet/terminal-based**

The addition of modules not initially installed requires minimal, if any, disruption to library operations. Innovative Interfaces' technical staff makes all necessary adjustments to menus and operating system tables to accommodate the new capability. The added number of terminals required is a library decision. Innovative Interfaces will in some cases, recommend that additional disk and memory be purchased, however, this too is done on a case by case basis.

PAC Searching

RESPONSE: Innovative's Web OPAC sets the industry standard, the first such Web OPAC in the marketplace, supporting more libraries on the Web than all other vendors combined. Fully functional and user-defined, this flexible Web OPAC makes Innovative

libraries accessible to anyone with Web access, combining the ease of use of a graphical user interface with the power and convenience of the World Wide Web. Offering intuitive options for streamlined use, Innovative's online catalog has always received the highest marks from both staff and patrons for providing a comprehensive, approachable and, above all, friendly interface for the public.

The look and feel of Millennium's Web OPAC is fully customizable by the Library through basic HTML editing. Likewise, the Library can customize the help screens, select the text for the on-screen functions and use a single-, two- or three-frame record display.

Millennium uses indexes when it performs searches (the Library has a great deal of leeway in specifying which fields will be included in each index and in defining the actual indexes for its catalog) and uses menus to guide patrons through the search options. The menu options change as the search progresses. In addition to offering various indexes for record retrieval in the Web OPAC, the Library can also offer some or all of the following services to Web OPAC users:

- **Information about the Library and its catalog.**
- **The ability to connect to other databases including journal citation and full text databases, image databases or to other library systems using Z39.50.**
- **The ability to export records in a variety of formats including e-mail.**
- **The ability to restrict a search to a particular collection (e.g., the West branch, or the music collection).**
- **The ability to transfer a search with a press of a single key to a Millennium system at another library with whom there is a cooperative agreement. (This requires that both libraries have Innovative's Partners software.)**

The Web OPAC offers the Library the following standard features:

- **Keyword index to Library-specified fields, which may include titles (both series titles and added entry titles), corporate/conference names, contents notes and any other data of the Library's choice through the application of the AltaVista search engine.**
- **Use of Boolean operators AND, OR, NOT, WITHIN and NEAR when performing keyword searches through the application of the AltaVista search engine.**
- **Default to adjacency searching when a keyword string is entered.**
- **Qualify (or limit) any search (keyword or phrase) by any data in the bibliographic record (e.g., year, language, author's name, title, subject, etc.).**
- **Fully customizable browse screens providing a Library-defined default of one or two lines of record information.**
- **Add and/or edit "Library Information Screens" using HTML.**
- **Patrons can make general suggestions to the Library, as well as suggest additional items the Library should acquire and receive a confirmation notice of actions taken per their request.**
- **Patrons can request items when using the Web OPAC and the Library can process these requests into holds.**

- **Automatically apply a charge to a patron's record at the time a request is placed in the Web OPAC.**
- **Patrons can browse through items that are related (by author, title, subject or series) to an item they have selected for viewing.**
- **List and analyze all the searches performed by patrons during the last ten days.**
- **Patrons can see their own patron circulation records: items checked-out, holds placed and fines levied. Patrons can renew their own items (at the Library's discretion), cancel their own holds and bookings, modify their personal information and Library PINs online, save preferred searches and create a defined subset of databases to meet their search requirements.**
- **Display scope notes and "see" and "see also" references.**
- **Patrons can retrieve lists of items on reserve for a course by course name(s) and instructor(s) names. Patrons may book items on reserve for use at specific times in the future. Booking may be done through the Reserve Lists function or in the Web OPAC.**
- **Items on course reserve can also be retrieved in the Web OPAC using author, title, etc. (as with any other item in the database); the course for which the item is on reserve can also be displayed in the Web OPAC.**
- **Retain history of last ten searches performed and select searches to be rerun, in same or edited form.**
- **Offer menu choice for combined author/title search. After author's name is entered, patron is prompted for words in the title by which the search should be limited.**
- **Offer menu choice to resubmit an unsuccessful two-word author search with the two names reversed, or to resubmit a subject or title search as a keyword search.**
- **Featured Lists display and access to Library-defined special collections or lists such as a New Acquisitions list, Video Collection, etc.**

The Web OPAC is extremely easy to use, presenting data in an attractive format. In addition to the standard features listed above, it also contains numerous sophisticated capabilities, including:

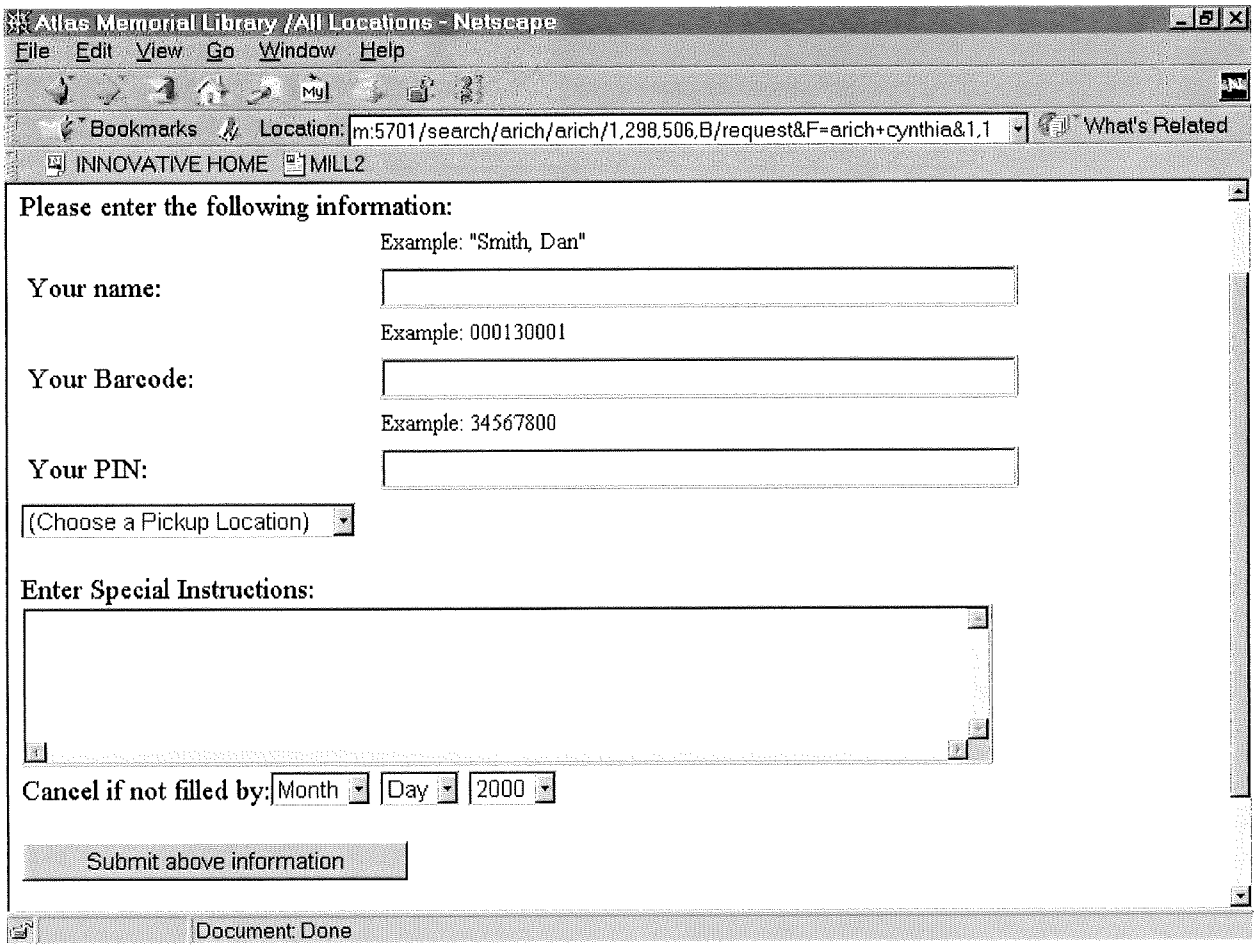
- **URLs in MARC 856 fields hyperlink to digital objects supported by local Web browser and its plug-ins, including Web pages, full text, images, sound and full motion video.**
- **Displays records in a logical order, i.e., alphabetically, chronologically or ranked by relevance; the Library chooses their system default; the patron can override the default by selecting an order of their choice.**
- **Displays the status of all copies of a book on the same screen as the bibliographic data, with or without using a Web browser frame.**
- **Chapter titles (and authors) from the books' table of contents are indexed and displayed with page numbers. Chapter authors are linked (by hypertext) to other works they have written.**
- **Suggests similar items of possible interest to the user.**
- **Users can view items "nearby on the shelf" to the record retrieved by simply clicking on the call number of the desired item.**
- **Hyperlink from the Library location display to an HTML document providing a map or other location-assistance information for the patron.**

Please see the responses to Sections C1. PAC – SEARCHING and C2. PAC – Search Results.

Holds

RESPONSE: Millennium allows patrons to place their own holds using the Request Item feature. This includes the ability for patrons to place requests for journal articles and/or Interlibrary Loan items. The Library may define for each patron type whether or not Millennium should offer this option. The security of patron-initiated hold functions can be protected by the use of Patron Identification Numbers (PINs). The Library may also specify whether staff should review and approve each request or if Millennium should automatically process requests. Millennium can be configured either to allow patrons to choose which copy will be used to satisfy the request or for Millennium to make the choice. Libraries can also specify that patrons be charged when they use the Request Item feature.

When the Request Item option is selected by a patron, Millennium displays an HTML form that can be edited by the Library:



The Library can specify that Millennium ask the patron for a pickup location and also for a "Cancel if not filled by" date.

After the patron provides the specified information, if the request is allowed, Millennium will reply with "REQUEST RECORDED." If the request is not allowed, Millennium will display a message informing the patron that the request has not been successful.

Daily reports are automatically compiled by the system. Millennium also has a very powerful report generator, the Create Lists function, which lets authorized Library staff create tailor-made lists of records based on user-specified criteria. The report generator requires very little training and no programming experience to use. Staff can create lists from any workstation and have a full range of search operators (e.g., equal to, not equal to, greater than, less than, between, has, does not have, exists, does not exist) for searching all fields in all database records. For example, staff might search for all orders with an order date between July 1, 2000, and June 30, 2001, and a status of partially paid; this would produce a list of all orders for which payments are still outstanding for the fiscal year.

Please see Section B7. Circulation Control – Holds.

Inventory

RESPONSE: Millennium's fully integrated Inventory Control provides the capability to print out the shelf list for any location, showing the circulation status for each item. It also can be used to read in a list of barcodes (e.g., from a portable scanner used to read the shelves) and to produce a report that compares this information to the shelf list and circulation files. The report includes items shelved out of order, items missing from the shelves but not checked out, items checked out but on the shelves, etc. This product can also insert the inventory date into each item record.

Please see Section H – Inventory.

Acquisitions

RESPONSE: Innovative can provide up to 500 templates for the proposed system. Records may be transferred between the Acquisitions module and Peoplesoft Purchasing and Accounting software.

Community Information Database

RESPONSE: Please see Section J. – Community Information for screen views of a sample Community Information Database. As described above, reports may be generated from Community Information records by utilizing Millennium's Create Lists function.

Self Check Systems, Automated Telephone Renewal and Book Security Systems

RESPONSE: The Interface to Third-Party Self Checkout System product, an optional feature, provides an interface for connecting a specialized Self Checkout workstation such as 3M's SelfCheck (using the "Standard Interface Protocol -- SIP -- 2.0") to the Library's Millennium system. The connection may be made either via the Library's Ethernet network or by utilizing an available RS232 port

The interface supports the standard capabilities of the Self Checkout workstation, including patron circulation status verification and authorization, item check-out using library defined loan rules and due date calculation. To check out items, patrons simply scan their barcode number and then scan the item's barcode. Circulation activities that would require an override if performed in the normal Circulation module are blocked, and a message directs the patron to the Circulation Desk. The Millennium System supports PIN verification.

Millennium gathers statistics for Self Checkout circulation activity just as for any other circulation location. Each separate Self Checkout workstation connected to Millennium

requires a separate interface. Use of the interface does not require an available Millennium Staff User License.

Innovative's Telephone Renewal module enables patrons to conduct renewal transactions from outside the Library using touch-tone buttons of telephones. Telephone Renewal features include:

- **Complete security for both patrons and the Library**
- **Easy renewal of selected items using individual patron ID numbers as passwords**
- **Full, secure integration with patron authorization**
- **Scalability for multiple phone lines**
- **Simple, friendly renewal process**
- **Full suite of locally recorded voice options**
- **Multilingual menu options**

Millennium staff modules support printing to locally-defined printers, either directly attached to the workstation or accessed through a network, Millennium server-defined system printers, printing to e-mail and printing to a file. The Millennium Web OPAC prints using standard Web-browser printing functions. However, the Export function in the Web OPAC can also be configured to allow printing to an e-mail address and saving to a file.

A locally-defined printer is any printer that is connected directly to a workstation or accessed by a workstation through the network. For example, on the Windows platform, a locally-defined printer is any printer configured in the Printers Control Panel. All printed output from Millennium staff modules and the Web OPAC can be printed to a locally-defined printer. In the case of Web OPAC printing, printing is entirely controlled by the Web browser being used.

Millennium system printers are printers configured on the Millennium server and accessible using TCP/IP over the Library's network. The Library may have as many system printers defined as desired but each printer must have a unique IP address assigned to it. Although theoretically any printer supporting TCP/IP connectivity can be configured as a system printer, Innovative specifically supports HP LaserJet printers. Print jobs sent to a system printer are handled by the Millennium server and sent to the system printer selected by the user. Because the printer is attached to the Library's network, it can also be used by workstations as a traditional network printer. Only staff modules may print to system printers and any print job from a staff module may be sent to a system printer; printing to a system printer from the Web OPAC is not supported. The Library can allow or restrict access to system printers based on the login being used to access the system.

Millennium also supports sending print jobs to an e-mail address and saving print jobs to a file. E-mail printing and printing to a file is supported in all staff modules. For the Web OPAC, e-mail printing and saving to a file is only supported in the Export function.

Innovative does not sell library security systems that monitor check out procedures.

Reports

RESPONSE: Millennium is widely recognized by librarians as the leading integrated system in terms of management information available to library managers and administrators.

Millennium's Web Management Reports module provides a complete and comprehensive set of reports that can be displayed as a table, graph or pie-chart and can also be downloaded for incorporation in a spreadsheet or other third-party applications. In addition to these standard reports, Millennium has a very powerful report generator, the Create Lists function, that lets authorized Library staff create lists of records based on user-specified criteria that can then be used with Millennium's statistical report function. The report generator not only requires no programming experience to use, it requires very little training. No external programming language, package or DBMS is required.

Millennium's report generator is an integral part of the System Management Information module and runs using a quick, natural-language and menu interface. Create Lists provides a full range of search operators (e.g., equal to, not equal to, greater than, less than, between, has, does not have, exists, does not exist) for searching all fields in all database records. Search results can be sorted by any field in the records contained in the list and can be displayed on-screen or output either as entire records or as user-selected fields to a printer, e-mail or as a delimited file. The Create Lists function is available to any authorized user from any workstation on the network.

The standard Millennium system comes with 80 review files for storing Library generated lists that collectively will hold up to 1,250,000 records (additional review files may be purchased). Each list is stored on Millennium until a Library staff person removes it from the system; i.e., until the review file is "emptied." Records stored in these review files can be used as input for other Millennium functions (e.g., Update Records, Export).

Millennium's reports fall into two broad categories:

a) **Regular reports: available online at any time. For example, the circulation module reports circulation activity by patron type, by item type, by call number, by location, by workstation, time of day, etc.**

b) **Ad-hoc reports: prepared on demand. Examples include reports that show what percentage of items or titles of each format appear in each group of call numbers.**

Please refer to Millennium Standard Reports, included with this response, for descriptions of standard reports available on the Millennium system.

Please refer to Section F – Statistics.

Training

RESPONSE: Innovative Interfaces will train staff on-site at the Library. Staff of different levels (from administrators to librarians to support staff) may attend the on-site training.

Innovative recommends training sessions of 6-8 persons (the actual number can be negotiated with the trainer). Training is conducted on a module-by-module basis by an experienced Innovative Interfaces trainer. This usually includes several trips to the Library, as installation of each module is complete and the Library is ready to move on to the next phase of its automation project. An exact schedule will be worked out between the Library and the Implementation team.

The Library is responsible for selecting staff to receive training. In many cases, these people later act as in-house trainers for the rest of Library staff. If the Library wishes to videotape or record the sessions for later review, this can be arranged with the trainer.

A detailed recommended training outline, listing the topics to be covered, is included in the "Training Outline" section of this response.

Most Millennium sites choose to conduct training on the live database. However, a separate training system can be purchased at the Library's request. If the Library chooses not to purchase a separate training database, test/training records can be suppressed from public display and easily maintained in order to keep them separate from permanent records.

Millennium's ease of use, combined with Innovative's hands-on "train the trainer" approach and a policy of unlimited 24-hour access to comprehensive help-desk services when questions do arise means that the vast majority of sites find that formal ongoing training is simply not necessary. Innovative routinely offers workshops and seminars at library conferences and Users Group meetings. Additional training can be acquired should the need arise.

Test Database

RESPONSE: Please see the response under "System Growth & Conversion of Data."

References

RESPONSE: Reference lists of libraries using Millennium systems are included in the "Supporting Documentation" section of this proposal.

Subcontractors

RESPONSE: Acknowledged

Configuration and Cost

RESPONSE: The Cost Proposal has been sent under separate cover.

Response to Specifications

RESPONSE: Acknowledged

System Requirements

A	**Bibliographic and Inventory Control**
A	**Authority Control**
A	**Cataloging/Database Management with Z39.50 client functionality**
A	**Public Access Catalog**
A	**World Wide Web Catalog Interface**
A	**Circulation**
A	**Serials Control**
A	**Acquisitions and Fund Accounting**
A	**Community Information Database**
A	**Z39.50 compliancy for the server and all modules**
A	**Report Generator**
A	**MARC Bibliographic and Authority Record Import/Export Utility**
A	**Materials Booking**
A	**User request and information module**
A	**Information gateway (WWW)**

Products and Services

A	**Data Conversion**
A	**Software (both operating and application)**
A	**Software and Hardware maintenance**
A	**Installation and database loading**

A Training

A Documentation

A Hardware

5850 Shellmound Way•Emeryville, CA 94608•510-655-6200•Fax 510-450-6350•Email info@iii.com•www.iii.com

A. General Requirements

1. A
2. A
3. A
4. A
5. A
6. A
7. A
8. A
9. A
10. A
11. A
12. A
13. A
14. A

RESPONSE: The Millennium server connects to any network that supports TCP/IP Ethernet protocols. Other network protocols and transmission technologies (e.g., dial-up, X25, ATM, FDDI, etc.) may be bridged or switched to Ethernet TCP/IP.

15. A
16. A
17. A
18. A

RESPONSE: The Millennium security system is designed to keep the Library's data confidential and to protect data from unauthorized changes. Millennium's

security system protects Library data in three ways. The first involves where certain functions are allowed to take place, i.e., on which workstations. The second involves who is allowed to perform certain functions. The third involves logging all changes to the database in a separate log file, with the time the change was done and the workstation from which it was done and who made the change.

Limiting certain functions to taking place only on certain physical workstations goes a long way toward protecting the Library's database. For example, changes to the catalog can be limited just to workstations located in the catalog department. Thus, to alter the catalog one would first have to gain physical entry into the catalog department. Users accessing the system from outside the Library via the Internet can, of course, be limited just to inquiry of the public catalog. If Millennium is connected to a network, such as the Internet, the system will log all non-local attempts to access the system, and the Library may specify (by IP address) the services available to users as a function not only of who they are (their login) but also as a function of where they are logging in from (based on IP address).

Once it has been decided that a certain function is to be allowed at a certain workstation, the Library can then decide whether anyone can perform that function at that workstation, or whether the function is to be limited to certain, specific individuals.

Individuals are first authorized to perform protected functions when the system supervisor (or other person authorized to enter and modify system authorizations) enters their identification and a list of the functions that they are authorized to perform. Then a password for that person is entered. Anytime after that, individuals can change their own passwords without involving their supervisor. Changing a password, however, has no effect on what functions a person is authorized to perform.

When a function has been limited to certain specific individuals, and a person then attempts to invoke that function from a workstation, they must identify themselves before they can proceed by keying their initials (or other user identification). Then, in order to confirm their identification, they must key in their own, private password. The password is not displayed on the screen when typed. If the user identification and password match and the individual is allowed to perform the function for which they have identified themselves, they are allowed to proceed; if not, they are blocked.

If the requested function involves updating the database in any way, the update is logged to a disk file called the transaction file. Each day this transaction file is copied to tape during the backup process. Using this tape, it is possible, should it ever be necessary, to reconstruct what changes were made in the database, change by change, when, by whom, and from which workstation they were done.

19. A

RESPONSE: The time will vary based on the extent of the failure. "Normal" failure recovery should be less than one hour.

Should it ever be necessary to restore Library data from the backup tapes to the disk, the current state of the disk can be reconstructed from the last weekly backup of the full database and the daily transactions that have occurred since then. In addition, there is a fairly high probability that today's transaction file, while not yet copied to tape, can also be accessed to bring the system back up to the point where it suffered its catastrophic failure. The major exception to this would be if the machine were destroyed in a fire or some other such natural catastrophe.

In addition to restoring Library data, Innovative restores all Millennium software, and, for turnkey customers, the OS software for their Millennium server.

If a fire or some other such natural catastrophe were to occur that destroyed the computer in the time between full backups, Innovative would be able to restore the Library's data using the most recent full backup plus all the daily backups that had been done since that time. For example, if the last full backup had been done the previous Saturday and the last daily backup was done on Tuesday evening, and a fire occurred on Wednesday, Innovative would be able to restore all the Library's data through Tuesday evening, and the only data lost would be transactions that took place between Tuesday night and the time of the fire on Wednesday.

In order to protect against such a natural catastrophe, the backup tapes should, of course, be stored in a safe place away from the machine itself. Indeed, the tapes for the last three weeks of backups should be kept in separate places to guard against the possibility of one or more of them being damaged at the same time that the machine has been damaged.

20. A

21. A

22. A

23. A

24. A

25. A

26. A

27. A

RESPONSE: Software enhancements are issued on an annual schedule and do not require hardware modification of any kind. Libraries may self-install software upgrades by simply selecting a menu option from the Millennium System Administration menu. When this option is selected, Millennium proceeds with the installation of the new software either by loading the necessary files from a tape sent by Innovative or automatically transferring the files over the Internet and then loading them. Upgrades may be self-installed at a time convenient to the Library and may require 2-4 hours of downtime. Technical help is available 24 hours a day should assistance with self-installation be necessary. Software enhancements and unlimited access to help desk services are provided at no additional charge as part of the Library's ongoing maintenance program.

Innovative is currently developing or testing the following Millennium modules:

- **Java-based Cataloging (in beta testing; Windows client currently available and in production)**
- **Java-based Interlibrary Loan (in beta testing)**
- **Java-based Materials Booking module (scheduled for 2001)**

28. A

29. A

RESPONSE: In order to ensure that all of the Library's data is protected from loss due to destruction of the Millennium CPU for any reason, Innovative Interfaces recommends that all the Library's data be copied ("backed up") daily. This can be done during the day while the system is in use or in scheduled, unattended mode during the night. A DAT drive is the standard supported backup device and in most cases a full backup will fit on a single DAT tape. The backup process takes approximately 20 to 40 minutes, depending on the size of the Library's database.

All backup operations are completed using the Millennium interface, no separate programs or procedures are required. No specialized staff or technical expertise is required. Staff and patrons may continue to utilize the system during the backup, although changes to records will not be committed until after the backup is complete. Complete instructions for performing a back up is provided in the Millennium User Manual.

30. A

RESPONSE: Millennium supports the full ALA character set. Java-based Millennium clients employ the UNICODE UTF-8 table and thus, display even more character sets. Display (including screens, help files and menus) and input support using UTF-8 and the following additional character sets includes:

- **ANSEL (ALA/MARC, including Spanish, French, Portuguese, Galician, Catalan/Valenciano, Swedish and Welsh)**
- **Extended Latin Alphabet Coded Character Set (Z39.47)**
- **EACC-encoded CJK**
- **CCCII (Chinese)**
- **BIG5 (Chinese)**
- **GB (Chinese)**
- **VISCII (Vietnamese, display only)**
- **TIS 620 (Thai)**
- **ISO 6937/2 (Including Estonian, Polish, Turkish)**
- **SJIS (Japanese)**
- **Windows code pages**
    - **1250 (Central European)**
    - **1251 (Cyrillic)**
    - **1252 (Latin 1)**
    - **1254 (Turkish)**
    - **1255 (Hebrew)**
    - **1256 (Arabic)**
    - **1257 (Baltic)**

Using a version of Windows prescribed by Innovative, the Millennium Cataloging Workstation for Windows currently supports display and input of characters belonging to the following character sets:

- **ANSEL (ALA/MARC)**
- **Extended Latin Alphabet Coded Character Set (Z39.47)**
- **Arabic**
- **Hebrew**
- **Cyrillic**
- **Chinese (BIG 5 only)**
- **Japanese**

Libraries with legacy hardware (i.e. dumb terminals) is supported as follows: Display of the ANSEL (ALA/MARC) character set is supported by Innovative's T160E terminal. Other terminal types (e.g. Wyse 55 and T160) support display

of diacritics as specified in the ISO Latin-1 character set using Compaq/Digital VT220 terminal emulation. Even more terminal types (e.g. VT100) are supported but may necessarily display diacritics only in the Latin script.

Because of the nature of Millennium's character set storage mechanism, it is possible to add, modify or delete a diacritic or special character on any ASCII keyboard, even if the hardware cannot display the glyph or character set. This is accomplished by displaying the ASCII "internal code" representation of the non-ASCII character and editing it directly instead of displaying the glyph.

31. **A**

RESPONSE: Please see the response to item 29, above.

32. **A**

33. **A**

34. **A**

RESPONSE: A significant part of Innovative's Web-based design strategy is to place access and use of the library system into a standard computing/workstation environment. Innovative specializes in library applications to maximize the functionality and portability of our software specifically for Libraries, rather than diverting our focus to development of products for use in other industries. To that end, Innovative recognizes that ADA-compliant workstations can be easily assembled using the highly sophisticated solutions now readily available from third parties. Individual workstations can be tailored to offer support for specific disabilities (including magnified screens, audio cues, and other additional features).

Innovative is currently developing circulation module compatibility with voice recognition software. This development will allow circulation staff to speak commands to a circulation workstation instead of having to key or use a mouse. Because the Millennium system offers so many options for customization, Libraries can choose how to best incorporate Millennium for use on ADA-compliant workstations, as needed.

35. **A**

36. **A**

B. Client and User Interface Requirements

1. A

2. A

3. A

4. A

RESPONSE: Users are never required to "request" help. Library-defined, context-sensitive help messages are provided on screen at every point in the search process. Additionally, the Millennium system guides users throughout the searching process with various aids:

- **an unsuccessful search in a phrase index can be redirected to the keyword index with a single keystroke;**
- **the system offers to reverse names during an unsuccessful author search, in the event that the user keyed the first name first;**
- **all searches that do not end in a hit are placed alphabetically within the index searched; the user has the ability to browse forward and backward through the entire length of the index and can view any record found;**
- **authority records are interfiled within the same indexes as the bibliographic records and are used to direct users to the preferred headings.**
- **Library-defined search help screens can be customized for each index, providing example searches and tips**
- **general help pages can be customized to aid in searching and using the Web OPAC**

5. A

6. A

7. A

RESPONSE: Primary control of peripheral devices connected to a workstation resides with the operating system of the workstation; the client interacts with the operating system and appropriate peripheral drivers in order to successfully accomplish given tasks; the Java and Web clients leave this responsibility to the web browser.

8. A

9. A

10. A

11. A

12. A

13. A

C. Network/Information Access Requirements

1. A

2. A

3. A

4. A

5. A

6. N

RESPONSE: Innovative maintains wireless, readable HTML.

7. A

D. Central Processing Unit (if new hardware is recommended)

1. A

Each Millennium CPU requires about 6 square feet of floor space. It does not require a separate computer room and can operate in a normal library or office environment. It does not require a raised floor or special supports. It does not need any special wiring, but should be on its own electrical circuit. Millennium does not require a UPS, but it is a good idea to have one.

Because the system can operate in a normal office environment, there is no need for special air conditioning/temperature, humidity or air flow controls. However, the Library will want to make sure the system is not covered, blocked in, or in a

room with high humidity or little air circulation. The best environment is at 68 degrees Fahrenheit with humidity of less than 90% and good air flow.

Special alarms are not required but are a good idea if the building is not already outfitted with these systems. A hand-held halon extinguisher (approved for computer use) should be provided.

A telephone line is required for diagnostic access by Innovative technicians.

The Library is responsible for all site preparation. Innovative will install the central site hardware and cabling up to 25 feet. Innovative does not install equipment requiring cabling over 25 feet nor cables which run through conduit.

2. **A**

3. **A**

4. **A**

RESPONSE: The CPU proposed herein is expandable and upgradable and should easily accommodate the Library's growth pattern. Millennium requires little or no downtime for expansion and upgrade to accommodate new workstations, functions, activity paths, etc. Most Millennium libraries expand their systems according to changes in their user population through the addition of memory and/or disk storage, records, functions and simultaneous users. Innovative prefers to meet each library's growth demands individually first by proposing a configuration that can be expanded readily and easily, and second by installing new functions, adding new users, and adding memory or disk storage as the Library's needs arise.

5. **A**

6. **A**

RESPONSE: The Shutdown option is a password-protected function that allows an authorized operator to stop the orderly running of programs on Millennium before turning off the machine. The operator might need to shut the server down for maintenance or to save power during a holiday period (the Library should inform Innovative of any planned Millennium shutdowns so that Innovative can advise the Library of any special procedures that should be performed).

In the event that Millennium experiences an interruption of electrical power and the server is not connected to a UPS, an authorized operator should perform the following tasks immediately:

- **Unplug the Millennium computer and all peripheral equipment directly attached to it. This includes all disk drive expansion units, network routers, system printers, etc. This is very important because when power is restored, it is possible that a power surge will occur that may cause damage to Millennium or its peripherals.**

- **Inform Innovative of the situation so that Innovative staff may assist with an orderly start up of Millennium when power is restored.**

If the Library's Millennium is supplied with an Uninterruptible Power Supply (UPS), the system will detect the power failure and automatically initiate an immediate and orderly shutdown of Millennium. The UPS is capable of supplying power to Millennium for the period of time that the shutdown requires (typically less than ten minutes). During this time, Millennium will shut itself down in the orderly fashion described above.

If the Library's Millennium server was properly shut down, either by an authorized operator, Innovative or by the UPS, the machine should come back up within a few minutes of restoration of power. Innovative staff will advise of any special procedures that may need to be performed before or after Millennium is running again.

7. A

Required Database Features

A. Bibliographic Files

1. A

RESPONSE: Millennium can read and write MARC records to magnetic tape or diskette. Millennium is able to output these files of records during times of interactive use of the system with minimal effect on response time. Innovative estimates that well in excess of 100,000 bibliographic records can be processed in a single 24-hour period, regardless of whether the system is in interactive use or dedicated batch mode. Innovative includes software and documentation to read and write MARC records as a standard part of all Millennium systems.

2. A

3. AD

RESPONSE: The Library can create templates for use in creating new records.

4. A

5. A

6. A

7. AD

RESPONSE: The Millennium system can detect duplicate bibliographic and authority records; however, Millennium does not retain these records in a review file for staff.

Millennium performs automatic duplicate checking on the title, series, ISN and bibliographic utility number while the operator is keying the record. In addition, the operator can ask for a report on any/all indexed fields in a record before adding it to the database and detect duplicates in this way.

Any indexed field from a bibliographic record (including OCLC record number, ISBN, call number, etc.) can be checked for duplication. Also, indexed fields from other kinds of records can be checked, such as barcode number from the item record or social security number from the patron record. Duplicate fields are reported and stored in the Report Heading Changes function until appropriate action is taken by authorized staff.

When keying new records, the Set System Options function allows the Library to select fields from bibliographic, item and patron records to be checked for duplication. For example, when keying a new bibliographic record, Millennium will ask "Check for duplication?" If answered yes, Millennium will check for duplicate bibliographic records by matching the title key of the title and series statement against titles already in the database. If a match is found, the system will stop the keying process, beep to alert the user, display the matching record(s), and offer the options:

- Examine duplicate record in more detail
- Continue keying new bibliographic record
- Use duplicate record
- Quit

8. A

RESPONSE: Millennium supports the maximum number of characters as allowed by the MARC format. Variable-length fields may be as long as 10,000 characters each. All variable-length fields are repeatable within a record. Any individual record may have as many as 500 variable-length fields as long as the total length of the record does not exceed 100,000 characters.

9. A

10. A

11. A

B. Database Files

1. A

2. A

3. A

RESPONSE: Millennium's Key New Records function facilitates data entry by supporting up to 100 Library-defined templates for each type of Millennium record, e.g., bibliographic, item, authority, order, check-in, patron and course. Each template allows the Library to specify the fields that are presented for completion by the operator and the values that are defaulted within the record. These templates may be modified at any time by authorized Library staff.

The operator can also define up to 150 permanent substitution phrases and up to 20 temporary substitution phrases for use when keying and updating variable-length fields in the regular editor to facilitate the entry of repetitive data.

In the Set System Options function, staff may create defaults for new records as another means of streamlining the process of keying new records. This feature allows the Library to specify:

- **Default values of fixed-length fields.**
- **Default MARC tags for variable-length fields.**
- **The fixed and variable-length fields the system will prompt for and the sequence in which they will be prompted.**

4. A

RESPONSE: With the Oracle database option, the system is completely open to various, third-party printing and reporting tools.

C. Authority File

1. **A**

2. **A**

3. **A**

4. **A**

5. **A**

The Millennium database architecture supports multiple subject thesauri. As a general rule, different thesauri are placed in separate indexes to gain the maximum benefit from Millennium's authority control features.

The Automated Authorities Processing product is available to libraries that have installed a MARC 21 database. All bibliographic and authority records in the database must conform to the MARC 21 format, and the following subject thesauri are supported:

- **Library of Congress Subject Headings**
- **LC Children's Literature**
- **Medical Subject Headings**
- **National Agricultural Library subject authority file**
- **Canadian Subject Headings**
- **Répertoire des vedettes-matière**

Thesauri not shown in the above list can be loaded and indexed, but they are outside of the scope of the Automated Authorities Processing program. Authority conflict and blind reference alerts are generated for each thesaurus represented in the database and appear in the daily Headings Report.

SEE and SEE ALSO references are automatically generated for all thesauri. Web OPAC cross-references are generated automatically upon saving the authority record.

6. **A**

7. **A**

8. **A**

9. **A**

10. **A**

11. A

12. A

13. A

14. A

15. A

16. AD

RESPONSE: Millennium does not use links between bibliographic records and their governing authority records. The system instead uses a "logical link" to the appropriate index entry, simplifying authority control maintenance and instantly updating the cross-references to the appropriate bibliographic records as the modified authority record is saved.

17. A

18. N

RESPONSE: Millennium neither creates nor requires the operator to create an authority record for each heading in the database. Rather than create pointers from authority records to headings in bibliographic records, a logical link is made through the indexes. Because of this architecture, it is not necessary to merge authority records, and authority records can be deleted or suppressed from the Web OPAC display at any time. Therefore, it also not necessary to "re-link" records after record deletion. Changes to authority records are logged, and the Automated Authorities Processing program updates the affected bibliographic records as needed.

19. A

20. A

21. A

22. A

23. A

24. A

25. A

RESPONSE: Normally, "see under," "broader term" and "narrower term" references are displayed as SEE ALSO references in Millennium.

However, if the Library wishes, Millennium can display a message indicating whether the term referred to in a SEE ALSO reference is a "broader" or "narrower" term. Millennium determines if a reference is broader or narrower based on the contents of subfield "w/0" in the 5XX field. If subfield "w" contains "g," Millennium displays "See also narrower term..." If it contains "h," Millennium displays "See also broader term..." Note that Millennium can only display this additional information for MARC 21 authority records that contain "g" or "h" in the 5XX subfield "w/0."

26. A

27. A

28. A

29. A

30. A

31. A

32. A

33. A

34. A

35. A

36. A

37. A

38. A

RESPONSE: Millennium can accommodate multiple authority files. However, this is not necessary as the system can distinguish among authority records from multiple sources (e.g., Sears, LC, NLM, etc.).

39. A

40. A

D. Patron File

1. A

RESPONSE: The minimum needed to create a patron record in Millennium is a name. All other fields are optional, and will vary from institution to institution. Each patron record can contain a single set of fixed-length "coded" fields and variable-length fields. The Library is given flexibility in defining fixed field values as well as defining what free-text variable length fields may be used.

2. A

RESPONSE: Please see the response to item D.1, above.

3. A

RESPONSE: Millennium allows the user to specify the fields to be checked for duplicate Patron records when keying new Patron records or creating Patron records by prompting the user to enter a list of one-letter Millennium field group tags from the Patron record (note that the chosen tags must be indexed). Duplicate checking is usually done on the barcode (b), the Social Security number, or, if applicable, the University ID (u).

4. A

5. A

6. AD

RESPONSE:The Library may define up to 256 different patron types for circulation purposes.

7. A

8. A

9. A

10. A

11. A

12. A

13. A

14. A

15. A

16. A

17. A

18. A

RESPONSE: Millennium provides an option for patrons to use a Personal Identification Number PIN) as an additional method of verifying their identity. The PIN can be any alphanumeric string of up to 30 characters in length. It is stored in encrypted form in a variable-length PIN field in the patron record. Patrons can change their PIN at any time using the View your circulation record option.

Creation of PIN fields by patrons
After the PIN verification option has been turned on, Millennium will ask a patron to specify a PIN the first time the patron selects a function that is protected by PIN verification. Millennium will then automatically create a PIN field in the patron's record using the specified PIN. Once created, the PIN will appear in displays of the Patron record in encrypted form. The PIN can be any alphanumeric string of up to 30 characters. For security purposes, a dash "-" is displayed for each character of the PIN as it is keyed.

Modification of PIN fields by patrons
When a patron selects the Modify PIN option, Millennium first asks the patron to enter their current PIN. After this is entered correctly, the patron is asked to enter the new PIN, and then to re-enter the new PIN (as confirmation that the patron entered the new PIN as desired). If the first and second entries of the new PIN do not match, Millennium displays the message They don't match; try again, and the existing PIN is left unchanged.

If a patron forgets his/her PIN
Staff may quickly and easily delete the PIN (which displays to staff in encrypted form), allowing the patron to create a new PIN as described above.

PIN numbers are not currently used in the Touch-Tone Telephone Renewal option.

19. A

20. A

RESPONSE: Millennium does not allow the deletion of patron records with oustanding fines or blocks, neither individually nor in batch mode. The fines or blocks must first be cleared (i.e., either by an authorized operator waiving the fines or blocks or by patron rectification), and then the patron record can be deleted.

21. A

RESPONSE: Please see the response to item D.20, above.

22. A

E. Data Files for MARC and Item Records

1. A

2. A

3. A

4. A

5. A

6. A

7. A

8. A

RESPONSE: Millennium is very flexible in its handling of patron and item barcodes. The system can be configured to recognize virtually any alphanumeric pattern, such as a social security number, as a valid barcode.

Innovative Interfaces recommends that barcodes be 14 digits long with a modulus 10 check digit. Millennium supports validity checking of this format. The most widely known are the Codabar and Code 39 formats. Other formats may also be supported by Millennium.

9. A

10. A

RESPONSE: Millennium item records contain the barcode and other copy or volume-specific information but no bibliographic information. The call number may be in the bibliographic and/or item record. The item record is never presented alone in Millennium; it is always displayed with its associated bibliographic record.

Item records contain 7 repeatable variable-length fields and 24 non-repeatable fixed-length fields. Up to 3,000 item records may be linked to a single bibliographic record. A single item record may be linked with multiple bibliographic records to accommodate "bound withs." Item fixed-length fields include Library-defined values for item types (up to 256) and item codes (ICODE1 supports up to 850 Library-defined codes and ICODE2 supports up to 32 code definitions), which may be used for statistical purposes or to create lists of item records.

11. A

12. A

13. A

RESPONSE: Millennium allows an authorized user the option to create a record "on the fly" for items or patrons having no existing record in the database. This allows staff to quickly enter brief records for circulation purposes. When an "on the fly" item is checked in, the system displays an alert of the Library's choosing, such as "Send to cataloging". A report of "on the fly" items and patrons may also be easily generated at any time using Millennium's report writer.

14. A

15. A

RESPONSE: The Library may suppress the display of particular records in the Web OPAC; for example, professional journals restricted to staff use only, or personal copies of books used in the Reserve Collection. To suppress the public display of a particular record, a library staff person enters the suppression code, usually specified by the Library, in the appropriate fixed-length field of that record. For instance, to suppress the display in the Web OPAC of a particular bibliographic record, enter an "n" in the record's BCODE3 field. The Library's "rules" for record suppression (i.e., the record type, the fixed-length field, and the code which suppresses the public display) are entered into the system by Innovative staff. The Library can suppress the public display of records of the following types:

- **Bibliographic**
- **Item**
- **Order**
- **Check-in**
- **Authority**
- **Course reserve**

In addition to the capability to suppress the display in the Web OPAC of individual records, under certain circumstances the system automatically suppresses the public display of order record information.

16. **A**

Millennium does not require a barcode in each item record. The item is then searchable by all bibliographic and item index points.

17. **A**

18. **AD**

Millennium stores location codes of up to 5 characters in bibliographic and item records. These codes may refer to general locations (e.g., "main" for Main Library) or specific shelving locations (e.g., "ref" for Reference Collection). Millennium can contain up to a combined total of 900 location codes for all record types. As an option, this may be increased to 1,800 or 3,000.

19. **A**

20. **A**

RESPONSE: The DELETE item records using barcode function makes it possible to delete a group of Item records by wanding in their barcodes. The program prompts the operator to wand in a group of barcodes, which are entered into a list. After all barcodes have been entered, the operator may review and edit the list. When you have finished reviewing the list, you can command Millennium to delete all items in the list.

21. **A**

22. **A**

23. **A**

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Functional Specifications

A. Cataloging

1. **A**

   RESPONSE: Millennium supports printing of labels, but not cards.

2. **A**

   RESPONSE: Millennium supports the maximum number of characters as allowed by the MARC format. Record lengths and size for the seven basic record types (i.e., bibliographic, order, check-in, item, patron, course and authority) are:

   - **Any given variable-length field may contain up to 10,000 characters.**
   - **Any given MARC tag may occur 127 times in a record.**
   - **Any given non-MARC field may occur 63 times in a record.**
   - **Any record of any type may contain up to 100,000 characters.**
   - **Any record of any type may contain up to 500 variable-length fields.**

3. **A**

   RESPONSE: The Millennium System currently can receive and output bibliographic and authority records in MARC21 communications format. We will agree to support the same for holdings record in MARC21 communications format.

   Please see the response to item A.2, above.

4. **A**

5. **A**

6. **A**

7. **A**

8. **A**

9. **A**

RESPONSE: The Transfer Attached Records function allows authorized operators to transfer attached item, check-in and order records from one bibliographic record to another, with an option to delete the source bibliographic record after its attached records have been transferred to the destination bibliographic record.

10. **A**

11. **A**

12. **A**

13. **A**

14. **A**

15. **A**

16. **A**

17. **A**

18. **A**

19. **A**

20. **A**

RESPONSE: Millennium has rules that define whether it should process a deletion request. The following is a summary. Millennium does not delete:

- **A record that is in use by the system ("busy"), or has a link to a record which is in use by the system.**
- **An item record if the item is checked out, on hold or on reserve.**
- **An item record that is attached to multiple bibliographic records.**
- **A bibliographic record with an attached item record, order record or check-in record.**
- **A bibliographic record that is linked to an item record which is in turn linked to another bibliographic record.**
- **A patron record if the patron has outstanding holds, fines or checkouts.**
- **A course record if the course has items on reserve.**
- **An order record if it is status "c," "o," "e" or "q."**
- **A check-in record if it is routed.**

Millennium will prompt the user to print a report of the reasons that any records were not deleted. If you answer "y," Millennium prints a list of reasons like the following:

b10020133 cannot be loaded
b10023325 has link, i11093041, which is busy
i11090910 attached to multiple bibs
i12031301 is checked out
o10599139 is status "o"

21. **A**

22. **A**

23. **A**

24. **A**

25. **A**

26. **A**

27. **A**

RESPONSE: Millennium provides for a great deal of flexibility in determining how data is presented to users onscreen. For example, sample Millennium search screens may be composed and changed on demand for each index by the local library. In addition, all field labels and the sequence in which they display may be specified by the local library and changed as the need arises with the supervision of Innovative Interfaces staff.

Only messages and commands that take the user from screen to screen are system-defined and out of the control of the local library. However, Innovative will always accept suggestions for altering these prompts as system enhancements.

28. **A**

29. **A**

30. **A**

31. **A**

32. **A**

33. **A**

34. A

35. A

36. A

37. A

38. A

39. A

40. A

41. A

42. A

43. A

44. A

45. A

RESPONSE: Millennium alerts for incorrect coding of MARC tags, indicators, subfields, language, country, etc. Millennium provides on-line verification of all MARC tags, fields, indicators, and subfields. Millennium also displays MARC tag information for every MARC field.

46. A

47. A

A1. Copy Cataloging

1. A

2. A

RESPONSE: Millennium Z39.50 is currently integrated with cataloging functions, but not with authority control.

3. A

4. A

5. A

6. A

7. A

B. MARC Holdings Records

1. A

RESPONSE: Millennium can store all fields, indicators and subfields specified in the MARC Format for Holdings Data. Support of the standard extends to check-in and display.

IMPORT
Data transmitted in the MARC Format for Holdings Data can be migrated to the Millennium database. Fields with non-standard tagging (e.g., 899) are generally mapped to standard tags (e.g., 866) during the load. Creation of predictive check-in cards during the load is planned.

EXPORT
Data stored in the Millennium check-in record can be exported in MARC Format for Holdings Data. Data stored in non-standard or mon-MARC fields can be mapped to MARC standard fields on output. Holdings information from the MFHD record can be delivered with the bibliographic record via Z39.50.

DISPLAY
The classification number, as well as the prefixes and suffixes, can be configured to display from the 852 or a Library-defined tag. Display of the shelving title is also supported. The Web OPAC display of formatted holdings generally conforms to a Z39.44-1986; support for Z39.71 is planned.

Six levels of enumeration, two levels of alternate enumeration and three levels of chronology in the MARC 21 Format for Holdings Data are supported. Support extends to both check-in and display. The display is based on the data as entered and is not compressed or decompressed. Display at any levels 3 and 4 is supported. Coded chronology displays in the language specified in 008/22-24. Twenty-nine languages are currently supported. Non-public notes do not display in the Web OPAC, but naturally, public notes display in the Web OPAC.

Other display parameters include:

- **853/863 and 866 display together in the "basic bibliographic units" area. Subfield 8 defines the presentation order.**
- **854/864 and 867 display together as "supplements." Subfield 8 defines the presentation order. Subfield "o" (Title of supplementary material) displays in the Web OPAC.**
- **855/865 and 868 display together as "indexes." Subfield 8 defines the presentation order. Subfield "o" (Title of index) displays in the Web OPAC.**
- **For tags 866-868, linking number "0" is supported for the purposes of display. The matching linking number in the 853-855 and 866-868 functionality as defined in the standard is also supported for the purposes of display.**
- **5XX note fields can be entered and optionally displayed in the detailed holdings display.**

2. A

3. A

4. A

5. A

6. A

7. A

8. A

9. A

11. A

12. A

13. A

14. A

15. A

16. A

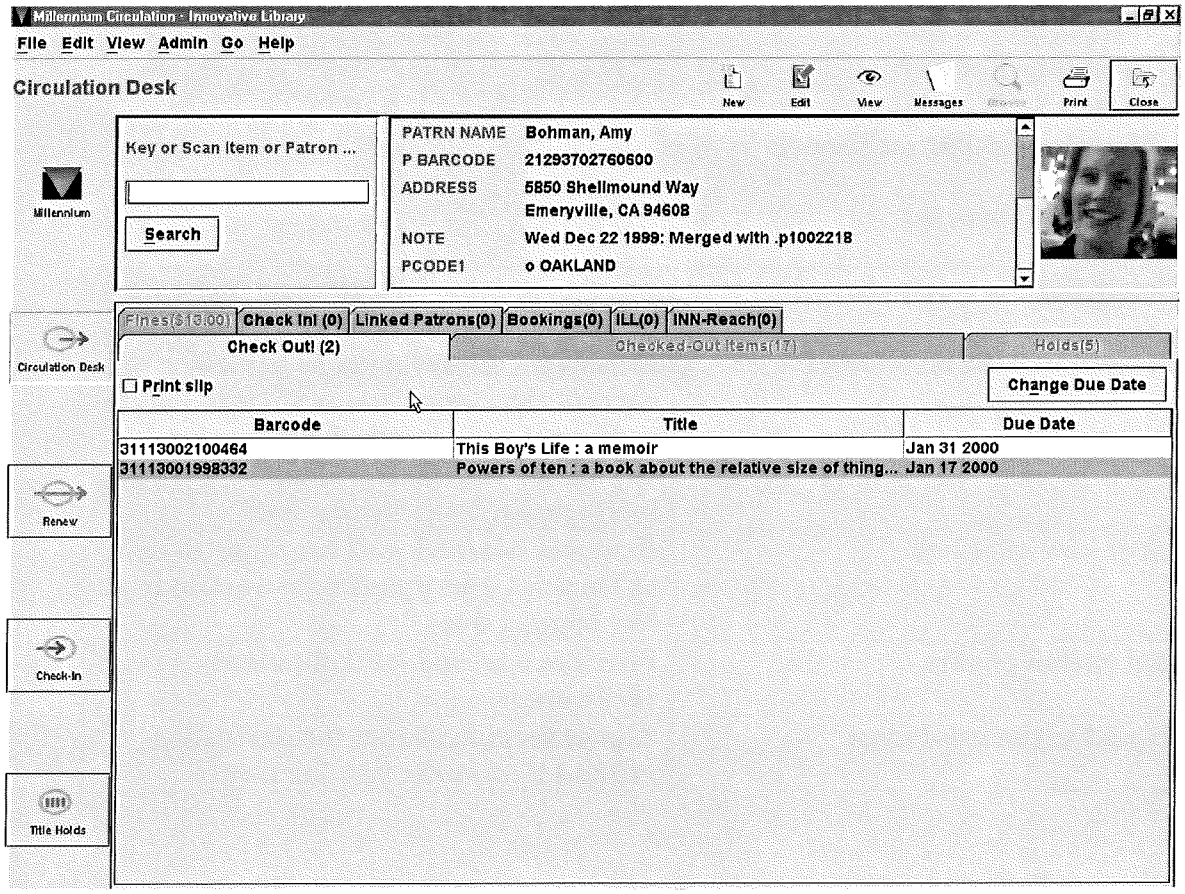
17. A

C. Circulation Control

Millennium Circulation Overview

The total circulation solution

True to the philosophy of Web-based computing, Millennium Circulation is a Java-based module that performs all the record keeping and reports associated with circulation of library materials. With an easy-to-use graphical user interface and efficient, flexible, and intuitive navigation, Millennium Circulation enables users to access all functions from the check-out screen with a single click or equivalent keyboard command.



Check Out Screen

Millennium Circulation includes all standard circulation functions:

- **Maintenance of patron and item records**
- **Check-out (charge)**
- **Renewals (including patron self-renewal through the Web OPAC and via the Telephone Renewal System)**
- **Check-in (discharge)**
- **Holds, recalls, and paging**
- **Fines**
- **Notices (in print, via email or the Telephone Notification System)**
- **In-house counts of non-circulating materials**
- **Offline Circulation**

In addition, Millennium Circulation also provides for:

- **Course Reserves (including electronic reserve items)**
- **Materials Booking**
- **Interlibrary Loan**
- **Inventory Control**
- **Patron Self-check-out (including via the 3M Self-check station)**
- **Homebound Patron Service**

Key features and benefits

Completely flexible loan policy	**Ensures that the Library may implement its own circulation policies**
Full integration with Web OPAC	**Empowers library patrons to view current circulation status of items and to perform a wide range of self-service circulation functions without intervention from library staff**
Graphical user interface	**Requires minimal staff training: an issue at libraries where staff may work only a few hours a week.**
Optional patron photos	**Provides a second level of patron verification**
Mouse- and keyboard-driven	**Allows users to choose the navigation method that works best for them**

Flexible Loan Policy

Millennium Circulation is designed to meet the needs of all types of libraries, from small special libraries to large academic libraries to large public library or multi-type library consortia. The system provides a completely flexible loan policy based on patron type, item

type, item location and the calendar of the hours and days the library is open. In addition to accommodating traditional loan periods, Millennium Circulation allows items on course reserve to be loaned for periods as short as one hour.

Item location	+ Item type	+ Patron type	= Loan rule
Stacks	(any)	Faculty	12 weeks
Stacks	(any)	Student	4 weeks
Stacks	(any)	Visiting patron or community borrower	1 week
A/V	Video	Student	3 days
A/V	CD	Student	1 week
Reserve	(any)	Student	2 hours

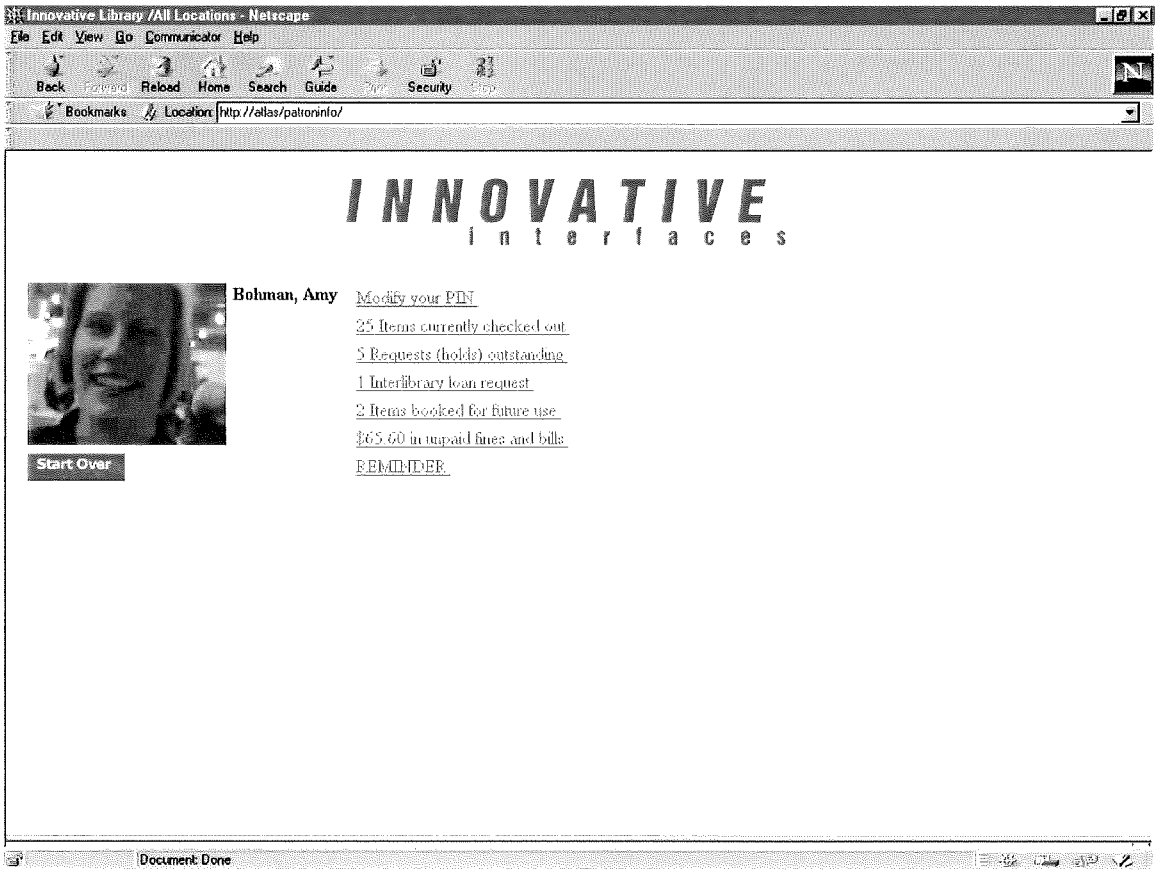
The loan rules in Millennium Circulation control what happens while an item is checked out, such as the loan period, fine amounts for overdue items, the schedule for sending notices and bills, and whether the item can be renewed or recalled.

With the flexibility of Millennium Circulation's loan rules, the Library is able to perpetuate its existing circulation policies even while moving to a new system.

Integration with Web OPAC and Patron Empowerment

Millennium Circulation is fully integrated with the Web OPAC. Circulation status is updated in real time, so that Web OPAC users will always see the most current item status. Properly authenticated Web OPAC users are also empowered to:

- **View their own checked out items, holds, fines, bookings, and interlibrary loans ready for pickup**
- **Renew items checked out to themselves, according to the Library's policies**
- **Place (and cancel) holds and make interlibrary loan requests**
- **Search for materials on reserve by course name, course number, and instructor's name**
- **View "Web notes" specifically entered in the patron's record for patron viewing in the Web OPAC**
- **Save preferred searches for automatic notification of new items as added to the collection which satisfy the search requirements**
- **Identify specific databases from the Library's offerings as preferred for their specific requirements**



Patron's view of own circulation record

Real-time processing

Millennium Circulation's real-time processing instantaneously detects non-circulating items and other blocks against borrowing during check-out. The system also checks for exceptional item statuses in both check-in and check-out, such as detecting items with "lost" or "missing" status, triggering holds, and allowing the user to collect fines for overdue items being checked in.

Full patron and item record support

The Millennium Circulation patron record contains a wide range of fields containing Library-defined codes to determine the patron's borrowing privileges and to track circulation statistics, e.g., by age category or academic major. The system instantaneously evaluates the patron's record for blocks against further borrowing, placing of holds, renewals, etc.

Similarly, the Millennium Circulation item record contains a large number of fields for tracking the circulation status of the item and tracking circulation statistics based on Library-defined codes. The unique MESSAGE field allows the Library to enter variable-

length notes into the item record that will pop up in check-out. For example, "Verify that both CD-ROM and instruction booklet are present."

Fines management

Fines are automatically posted to a patron's record at the time an overdue item is checked in, when an item is marked lost, or when a long-overdue item is billed. Staff may also add manual charges to a patron's record for photocopying fees and damage to Library materials.

Payment of fines may be done in the process of checking in an overdue item, or at a later date. All payment information is recorded in the Fines Paid file, and this information is easily accessible from the patron's record.

For libraries that do not collect fines in the Library, an interface to the bursar's office is also available.

Holds management and inter-branch lending

Holds may be placed on a specific copy, or on the copy returned soonest. In addition, when a hold is placed on an available item at another location, the system will automatically page the item. Paged items are routed to the patron's desired pick-up location, and the patron is notified that the item is ready for pick-up.

Depending upon Library policy, checked out items may be recalled. Patrons with recalled items are issued notices to let them know that these items are due sooner than the original due date.

Inter-branch lending is facilitated in Millennium Circulation by the ability to place a hold on an available item at another location. The paged item is put in transit to the patron's preferred pick-up location, where the patron checks the item out. Regardless of where the item is returned, if it is not the item's owning library, the item will be put in transit to the owning library.

Notices

Millennium Circulation provides for a full range of circulation notices. The system's loan rules determine the interval at which the notices will be produced and the message text of the notice, along with the list of the overdue items.

In addition to print notices, Millennium Circulation includes the ability to send notices via e-mail and to deliver overdue and hold pick-up notices over the phone.

Due date receipts may be printed in real time during the check-out process.

Course Reserves

Library users who wish to see what items are on reserve for their courses may search the Web OPAC by course name, course number or professor's name. Electronic course reserve articles are viewable directly through the Web OPAC by authorized users. Physical items on reserve are checked out through the normal circulation module. Millennium Circulation is used to create and update course records and to place items on and off reserve.

Circulation Statistics

Circulation statistics are critical in justifying funding for libraries of all kinds. In addition to the statistics on circulation, Millennium also provides in-house use counts to track usage of non-circulating material. Circulation statistics also help collection development librarians enrich the parts of the Library's collection that are receiving the heaviest use.

Data Exchange with Other Systems

Innovative continues its tradition as an industry leader in interfacing with other systems with products such as:

- **Patron API – allows an external system to authenticate individuals against the Millennium patron database**
- **Bursar In/Out Interface – enables libraries that do not collect fines in the library to send a file containing patron fines and charges in a machine-readable format to the bursar's office. Files from the bursar's office can then be reconciled using the Input from Bursar's Office function.**
- **Interface to 3M SelfCheck – the 3M SelfCheck unit communicates, via the SIP2 protocol, with the Millennium server to allow patrons to check out their own library materials.**

New Technologies

Millennium Circulation utilizes various technologies to provide information to patrons in the format that is most convenient for them, including:

- **The ability to "beam" due date information into the calendar on a Personal Digital Assistant (such as the Palm Pilot), using standard electronic calendar protocols**
- **E-mail circulation notices**
- **Telephone notices and renewals**

Millennium Circulation is also supporting radio frequency devices using SIP 2 protocols as libraries adopt this replacement technology for traditional barcodes. Our support includes all circulation functions. Enhancements to our Inventory Control module to work with RFI is currently in development and scheduled for release later this fall.

A new definition of circulation

Millennium Circulation is a forward-looking product that is being constantly updated to incorporate the latest technologies to help provide an entirely new level service to their borrowers.

1. **A**
2. **A**
3. **A**
4. **A**
5. **A**
6. **A**
7. **A**
8. **A**
9. **A**
10. **A**

    RESPONSE: Millennium's fully integrated Inventory Control provides the capability to print out the shelf list for any location, showing the circulation status for each item. It also can be used to read in a list of barcodes (e.g., from a portable scanner used to read the shelves) and to produce a report that compares this information to the shelf list and circulation files. The report includes items shelved out of order, items missing from the shelves but not checked out, items checked out but on the shelves, etc. This product can also insert the inventory date into each item record.

11. **A**
12. **A**

13. AD

RESPONSE: Please see the response to item B1.1, below.

B1. Circulation Control Parameters

1. A

RESPONSE: Millennium is designed to allow for a great deal of flexibility and customization at the local level. Most of the system's parameters and functions may be set by the Library as needed, without the need of a programmer. A more comprehensive list of areas in the Millennium system that can be altered from within Millennium's menus are listed below.

All system management functions, including such key factors as who is authorized to access specific functions and files within the Millennium system, as well as reports and statistics, are fully under the control of authorized staff of each location using the system.

CUSTOMIZING THE CIRCULATION MODULE:
Millennium has an extremely flexible system for recording the Libraries' circulation policies. These policies are recorded in a series of five main tables in the system. An authorized Library staff member can change or add to these tables at any time, and the changes take place as soon as they are keyed into the system. No special skill is required to make the changes.

The five main tables are:

1. **Loan rule table**
2. **Rule determiner table**
3. **Patron block threshold table**
4. **Library calendar**
5. **Table of locations served by each workstation**

1. LOAN RULE TABLE
The Library can have as many loan rules as desired. Each loan rule contains such variables as how long an item may be borrowed, how many times it may be renewed, how much the fines are if it is returned late (or not returned at all), when various overdue notices are produced, what is on those notices, etc. There are forty-eight separate variables contained in each loan rule.

2. RULE DETERMINER TABLE
This table specifies the circumstances under which to apply a particular loan rule. The loan rule to apply is determined by three variables:

- **the library location that controls the item (up to 3,000 locations supported)**
- **the type of patron (256 types allowed)**
- **the type of item (256 types allowed)**

This three-dimensional rule determiner table, when combined with an unlimited number of loan rules (each with 48 variables describing the loan completely), allows for the most flexible set of circulation policies available in any system.

3. PATRON BLOCK THRESHOLD TABLE
This table controls the kinds of automatic patron blocks to invoke, and when to invoke them. Millennium allows patrons to be automatically blocked for various reasons. Some are:

- **patron card expired**
- **too many items checked out**
- **too many items of a certain type checked out**
- **outstanding fines and bills exceed a certain amount**
- **not responding to overdue notices**
- **too many items on hold (applies only to placing more holds)**

Different thresholds for invoking these automatic blocks can be set for each of the 256 possible patron types. Manual blocks can, of course, be set for any patron, for any reason, by an authorized staff member.

4. LIBRARY CALENDAR
This table tells the system the days that the Library is closed, and, in the case of hourly loans, when the Library opens and closes each day. Each library location may maintain its own set of days closed and hours open. This information is used to adjust any computed due date so that items do not fall due at a time when the Library is closed. It is also used, at the Library's option, to not assess fines for overdue items during the time that the Library is closed.

5. LOCATIONS SERVED TABLE
This table tells the system which items can be checked in at which locations. If an item is checked in at a location that is not allowed for that item, Millennium will inform the operator of the location that the item belongs to and, at the Library's option, deny the check-in or check-in the item with its status set to "in-transit." This table is also used by Millennium's public catalog module to sort item records so that those items owned by the location where the workstation is located are displayed in the primary position. Additionally, libraries can get statistics by location.

2. N

RESPONSE: Please see the response to item B1.1, above.

3. **A**

4. **A**

RESPONSE: Please see the response to item B1.1, above.

5. **A**

6. **A**

7. **A**

8. **A**

9. **A**

10. **A**

11. **A**

12. **A**

B2. Checkout Procedures

1. **A**

2. **A**

3. **A**

4. **A**

5. **A**

6. **A**

7. **A**

9. **A**

10. **A**

11. **A**

PATRON BLOCK THRESHOLD TABLE
This table controls the kinds of automatic patron blocks to invoke, and when to invoke them. Millennium allows patrons to be automatically blocked for up to six separate reasons:

- **patron card expired**
- **too many items checked out**
- **too many items of a certain type checked out**
- **outstanding fines and bills exceed a certain amount**
- **not responding to overdue notices**
- **too many items on hold (applies only to placing more holds)**

Different thresholds for invoking each of these six automatic blocks can be set for each of the 256 possible types of patrons. Manual blocks can, of course, be set for any patron, for any reason, by an authorized staff operator.

12. **A**

RESPONSE: Please see the response to item B1.1, above.

13. **A**

RESPONSE: Date due slips can be printed at checkout and accommodate a variety of paper formats and sizes (40 or 80 characters per line are typical paper sizes used). Any printer may be used to print the slips. If the workstation has a choice of printers, Millennium will ask the operator to specify a printer at the beginning of each checkout session at which date due slips can be printed. The Library may also set the system to always print slips, never print slips, or ask the operator whether slips should be printed for each checkout session.

Date due slips include the workstation number, when the checkout took place, patron's name, title, barcode, and due date. Millennium can generate a single date due slip for each checked out item or a single slip for all checked out items. The Library may include free text at the top of each slip, such as the name and phone number of the Library, and may optionally suppress printing of the patron name and barcode.

14. **A**

RESPONSE: Please see the response to item B2.13, above.

15. **A**

16. **A**

17. A

18. A

19. A

20. A

21. A

22. A

23. A

24. A

25. A

26. A

27. A

28. A

29. A

30. A

31. A

RESPONSE: The Interface to Third-Party Self Checkout System product, an optional feature, provides an interface for connecting a specialized Self Checkout workstation such as 3M's SelfCheck (using the "Standard Interface Protocol -- SIP -- 2.0") to the Library's Millennium system. The connection may be made either via the Library's Ethernet network or by utilizing an available RS232 port

The interface supports the standard capabilities of the Self Checkout workstation, including patron circulation status verification and authorization, item check-out using library defined loan rules and due date calculation. To check out items, patrons simply scan their barcode number and then scan the item's barcode. Circulation activities that would require an override if performed in the normal Circulation module are blocked, and a message directs the patron to the Circulation Desk. The Millennium System supports PIN verification.

Millennium gathers statistics for Self Checkout circulation activity just as for any other circulation location. Each separate Self Checkout workstation connected to Millennium requires a separate interface. Use of the interface does not require an available Millennium Staff User License.

32. **AD**

RESPONSE: Millennium does not require batch processing. All processing is performed in real time during peak periods of use without measurably affecting response times or system functionality.

33. **A**

34. **A**

35. **A**

36. **A**

B3. Renewals

1. **A**

2. **A**

3. **A**

4. **A**

5. **A**

6. **A**

7. **A**

8. **A**

9. **A**

10. **A**

11. **A**

12. A

RESPONSE: Innovative's Telephone Renewal module enables patrons to conduct renewal transactions from outside the Library using touch-tone buttons of telephones. Telephone Renewal features include:

- **Complete security for both patrons and the Library**
- **Easy renewal of selected items using individual patron ID numbers as passwords**
- **Full, secure integration with patron authorization**
- **Scalability for multiple phone lines**
- **Simple, friendly renewal process**
- **Full suite of locally recorded voice options**
- **Multilingual menu options**

13. A

14. A

15. A

16. A

B4. Check-in

1. A

2. A

3. A

RESPONSE: Millennium is very flexible in regard to manipulating due dates. The Library can define back-dating and future-dating schemes to allow "book drop" returns during hours when the Library is closed. In addition, Millennium is very flexible in terms of allowing the Library to define its due dates. Due dates can be calculated as follows:

- **Absolute (fixed) Julian calendar date**
- **Days**
- **Hours, rounded to nearest hour, with or without overnight loan allowed**
- **Hours, rounded to nearest minute, with or without overnight loan allowed**

- **Non-circulating (if overridden on check-out, Millennium assumes units are days)**

4. **A**

5. **A**

B5. Circulation Control – Fines

1. **A**

2. **A**

3. **A**

4. **A**

5. **A**

6. **A**

7. **A**

8. **A**

9. **A**

10. **A**

11. **A**

12. **A**

13. **A**

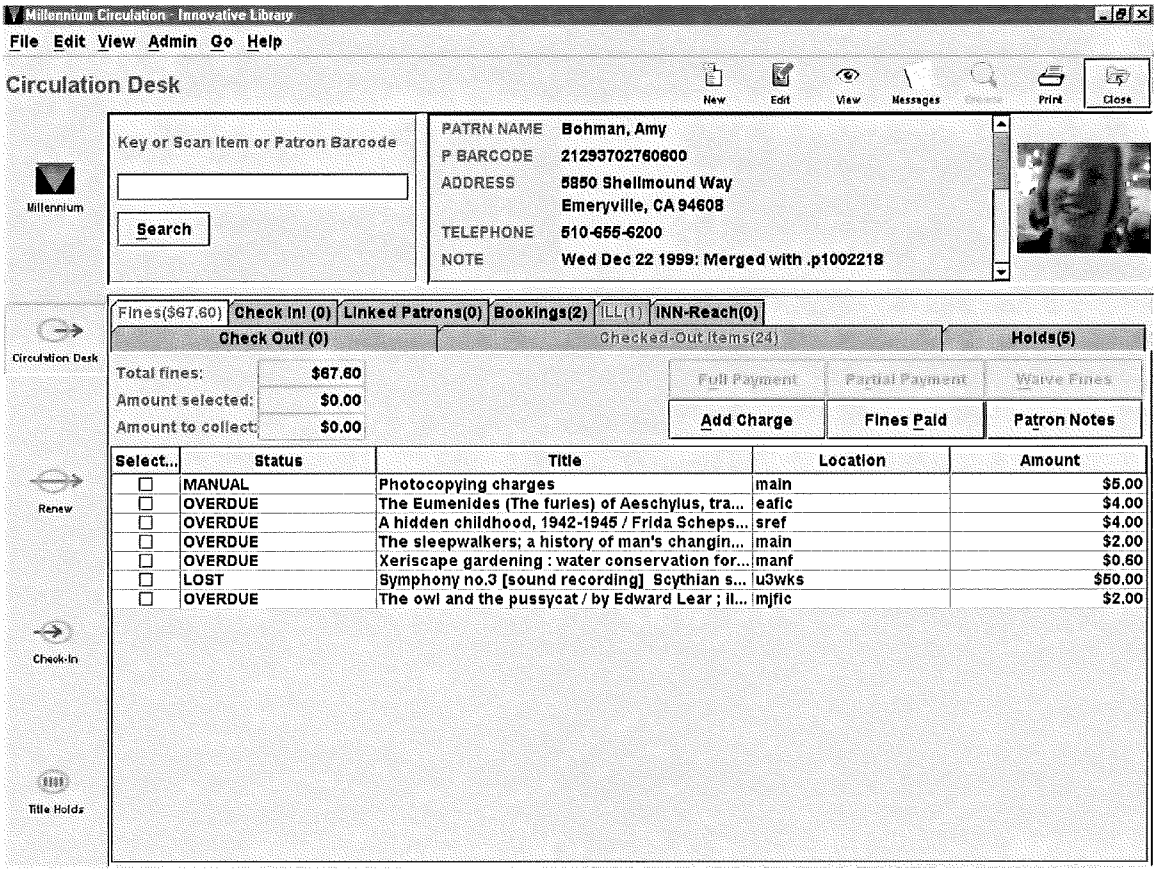
14. **A**

15. **A**

RESPONSE: While Millennium does not link directly to a cash register, the system supports the ability to track financial charges associated with circulation and library services for each individual patron. Whenever any money is collected

from a patron, the details of the transaction are automatically recorded in a Fines Paid file.

A specific patron's entries in the fines paid tab can be viewed easily from the fines tab of the patron record as seen below:


Millennium Circulation - Innovative Library
File Edit View Admin Go Help
Circulation Desk
New Edit View Messages Print Close
Key or Scan Item or Patron Barcode
Search
PATRN NAME Bohman, Amy
P BARCODE 21293702760600
ADDRESS 5850 Shellmound Way
Emeryville, CA 94608
TELEPHONE 510-655-6200
NOTE Wed Dec 22 1999: Merged with .p1002218
Millennium
Circulation Desk
Renew
Check-In
Title Holds
Fines($67.60) Check In! (0) Linked Patrons(0) Bookings(2) ILL(1) INN-Reach(0)
Check Out! (0) Checked-Out Items(24) Holds(5)
Total fines: $67.60
Amount selected: $0.00
Amount to collect: $0.00
Full Payment Partial Payment Waive Fines
Add Charge Fines Paid Patron Notes
Select... Status Title Location Amount
MANUAL Photocopying charges main $5.00
OVERDUE The Eumenides (The furies) of Aeschylus, tra... eafic $4.00
OVERDUE A hidden childhood, 1942-1945 / Frida Scheps... sref $4.00
OVERDUE The sleepwalkers; a history of man's changin... main $2.00
OVERDUE Xeriscape gardening : water conservation for... manf $0.60
LOST Symphony no.3 [sound recording] Scythian s... u3wks $50.00
OVERDUE The owl and the pussycat / by Edward Lear ; il... mjfic $2.00

The Financial Functions of the Circulation Subsystem permit authorized operators to review all payments collected in a given time period, either system-wide or by location, to provide a total amount collected in a day or week or month. The standard Millennium system is installed with enough disk space to hold approximately three months of payments. However, if additional disk space is available, the size of the Fines Paid file can be increased as the Library wishes. Authorized staff are able to selectively view the file and clear it of old records at any time, and many libraries archive this file periodically.

The List Daily Receipts option produces a chronological list of total amounts collected each day. The report displays a summary view of the date, the number of items, the total amount collected, and a break down of dollars by type of receipt: fine, replacement, manual, or waived fees. The system also provides a detail view that displays specific information about each individual transaction, including patron name

and number, and fine and payment amounts and descriptions. Financial information can also be exported for use in other applications or for archive purposes, as necessary.

Combined with Millennium's login manager reports which display each transaction performed by individual staff logins, the system can provide the Library adequate monitoring of cash transactions.

16. A

Samples:

Current Date

Shellmound Main Library
5850 Shellmound Way
Emeryville, CA 94608

James Dean
422 Hollywood Blvd.
San Francisco, CA 94132

FINE NOTICE:
Thank you for returning the material listed below to the library. You now owe the following amount(s) in overdue fines.

Inv #1469 OVERDUE CHARGE $3.00
AUTHOR: King-Smith, Dick.
TITLE: Harry's mad
LOCATION: Main-Juvenile Fiction
CALL NO: KIN
BARCODE: 1110001697984
DATE CHECKED OUT: Fri June 08 2001 08:53AM
DATE DUE: Fri June 01 2001
DATE RETURNED: Fri June 08 2001

NOTE: Total outstanding fines and bills $53.00

Fine notice

Shellmound Library

RECEIPT

Patron: Dean, James **Thu Jun 14 14:18:04 PDT 2001**

Invoice #	Status	Description	Amount Paid
909	OVERDUE	Eating disorders	$3.00
	Total		$3.00

Receipt for Paid Fines

B5. Circulation Control – Notices

1. A
2. A
3. A
4. A
5. A
6. A
7. A
8. A
9. A
10. A

Samples:

Today's Date

Shellmound Main Library
5850 Shellmound Way
Emeryville, CA 94608

James Dean
422 Hollywood Blvd.
San Francisco, CA 94132

FIRST OVERDUE:
The item(s) listed here is/are overdue. Please renew or return to the library as soon as possible. Thank you.

AUTHOR: Hillary, Edmund,
Ascent : two lives explored : the a
CALL NO: 796.522 HIL
BARCODE: 1110001530725

First Overdue Notice

Current Date

Shellmound Main Library
5850 Shellmound Way
Emeryville, CA 94608

James Dean
422 Hollywood Blvd.
San Francisco, CA 94132

PICKUP NOTICE:
The material you requested is now available for pickup at the circulation desk at the library. You have five days from the date on this notice to retrieve this material.

AUTHOR: Shakespeare, William,
Complete works of Shakespeare
CALL NO: 822.33 J VOL.6
BARCODE: 1110001547593

Hold Pickup Notice

B6. Circulation Control – Lost Books

1. A
2. A
3. A
4. A

B7. Circulation Control – Holds

1. A
2. A
3. A
4. A
5. A
6. A
7. A
8. A
9. A
10. A
11. A
12. A
13. AD

RESPONSE: Millennium does not cancel holds automatically. However, an authorized operator may cancel holds, thereby releasing material for circulation or other use. Each night, Millennium scans its database and produces a list of all outstanding holds. The Clear the Hold Shelf function also uses this list to "clear" outstanding holds that have expired, either because they have passed their not-wanted-after date, or because they have been on the hold shelf too long and should now be returned to the stacks or moved to the next person in the hold queue.

If the Library is using the Multiple Location Hold Shelf, clearing the hold shelf will also move an item to the next patron in the queue, or change the item's status to AVAILABLE if there are no other patrons in the queue. In order to ensure that expired holds are cleared and that items do not remain on the hold shelf indefinitely, it is necessary to periodically clear the hold shelf.

14. A
15. A
16. A

17. A

18. A

19. A

20. A

21. A

22. A

23. A

24. A

25. A

26. A

27. A

28. A

RESPONSE: Please see the response to item B7.13, above.

29. A

RESPONSE: Part of the Millennium system's collection development tools is the Purchase Alert function. As an integration of both the Circulation and the Acquisitions modules, the system uses circulation data to suggest the ordering of high-demand material. A purchase alert is generated by the system when the number of outstanding holds for an individual item reaches a Library-defined threshold. Because the system is flexible and easy to use, purchase order lists may also be analyzed with Millennium's other statistical analysis tools.

30. A

31. A

D. Public Access Catalog

Innovative's Web OPAC sets the industry standard, the first such Web OPAC in the marketplace, supporting more libraries on the Web than all other vendors combined. Fully functional and user-defined, this flexible Web OPAC makes Innovative libraries accessible to anyone with Web access, combining the ease of use of a graphical user interface with the power and convenience of the World Wide Web. Offering intuitive options for streamlined use, Innovative's online catalog has always received the highest marks from both staff and patrons for providing a comprehensive, approachable and, above all, friendly interface for the public.

The look and feel of Millennium's Web OPAC is fully customizable by the Library through basic HTML editing. Likewise, the Library can customize the help screens, select the text for the on-screen functions and use a single-, two- or three-frame record display.

Millennium uses indexes when it performs searches (the Library has a great deal of leeway in specifying which fields will be included in each index and in defining the actual indexes for its catalog) and uses menus to guide patrons through the search options. The menu options change as the search progresses. In addition to offering various indexes for record retrieval in the Web OPAC, the Library can also offer some or all of the following services to Web OPAC users:

- **Information about the Library and its catalog.**
- **The ability to connect to other databases including journal citation and full text databases, image databases or to other library systems using Z39.50.**
- **The ability to export records in a variety of formats including e-mail.**
- **The ability to restrict a search to a particular collection (e.g., the West branch, or the music collection).**
- **The ability to transfer a search with a press of a single key to a Millennium system at another library with whom there is a cooperative agreement. (This requires that both libraries have Innovative's Partners software.)**

The Web OPAC offers the Library the following standard features:

- **Keyword index to Library-specified fields, which may include titles (both series titles and added entry titles), corporate/conference names, contents notes and any other data of the Library's choice through the application of the AltaVista search engine.**
- **Use of Boolean operators AND, OR, NOT, WITHIN and NEAR when performing keyword searches through the application of the AltaVista search engine.**
- **Default to adjacency searching when a keyword string is entered.**
- **Qualify (or limit) any search (keyword or phrase) by any data in the bibliographic record (e.g., year, language,author's name, title, subject, etc.).**

- **Fully customizable browse screens providing a Library-defined default of one or two lines of record information.**
- **Add and/or edit "Library Information Screens" using HTML.**
- **Patrons can make general suggestions to the Library, as well as suggest additional items the Library should acquire and receive a confirmation notice of actions taken per their request.**
- **Patrons can request items when using the Web OPAC and the Library can process these requests into holds.**
- **Automatically apply a charge to a patron's record at the time a request is placed in the Web OPAC.**
- **Patrons can browse through items that are related (by author, title, subject or series) to an item they have selected for viewing.**
- **List and analyze all the searches performed by patrons during the last ten days.**
- **Patrons can see their own patron circulation records: items checked-out, holds placed and fines levied. Patrons can renew their own items (at the Library's discretion), cancel their own holds and bookings, modify their personal information and Library PINs online, save preferred searches and create a defined subset of databases to meet their search requirements.**
- **Display scope notes and "see" and "see also" references.**
- **Patrons can retrieve lists of items on reserve for a course by course name(s) and instructor(s) names. Patrons may book items on reserve for use at specific times in the future. Booking may be done through the Reserve Lists function or in the Web OPAC.**
- **Items on course reserve can also be retrieved in the Web OPAC using author, title, etc. (as with any other item in the database); the course for which the item is on reserve can also be displayed in the Web OPAC.**
- **Retain history of last ten searches performed and select searches to be rerun, in same or edited form.**
- **Offer menu choice for combined author/title search. After author's name is entered, patron is prompted for words in the title by which the search should be limited.**
- **Offer menu choice to resubmit an unsuccessful two-word author search with the two names reversed, or to resubmit a subject or title search as a keyword search.**
- **Featured Lists display and access to Library-defined special collections or lists such as a New Acquisitions list, Video Collection, etc.**

The Web OPAC is extremely easy to use, presenting data in an attractive format. In addition to the standard features listed above, it also contains numerous sophisticated capabilities, including:

- **URLs in MARC 856 fields hyperlink to digital objects supported by local Web browser and its plug-ins, including Web pages, full text, images, sound and full motion video.**

- **Displays records in a logical order, i.e., alphabetically, chronologically or ranked by relevance; the Library chooses their system default; the patron can override the default by selecting an order of their choice.**
- **Displays the status of all copies of a book on the same screen as the bibliographic data, with or without using a Web browser frame.**
- **Chapter titles (and authors) from the books' table of contents are indexed and displayed with page numbers. Chapter authors are linked (by hypertext) to other works they have written.**
- **Suggests similar items of possible interest to the user.**
- **Users can view items "nearby on the shelf" to the record retrieved by simply clicking on the call number of the desired item.**
- **Hyperlink from the Library location display to an HTML document providing a map or other location-assistance information for the patron.**

1. **A**
2. **A**
3. **A**
4. **A**
5. **A**
6. **A**
7. **A**
8. **A**
9. **A**
10. **A**
11. **A**
12. **A**
13. **A**
14. **A**

RESPONSE: A significant part of Innovative's Web-based design strategy is to place access and use of the library system into a standard computing/workstation

environment. Innovative specializes in library applications to maximize the functionality and portability of our software specifically for Libraries, rather than diverting our focus to development of products for use in other industries. To that end, Innovative recognizes that ADA-compliant workstations can be easily assembled using the highly sophisticated solutions now readily available from third parties. Individual workstations can be tailored to offer support for specific disabilities (including magnified screens, audio cues, and other additional features).

Innovative is currently developing circulation module compatibility with voice recognition software. This development will allow circulation staff to speak commands to a circulation workstation instead of having to key or use a mouse.

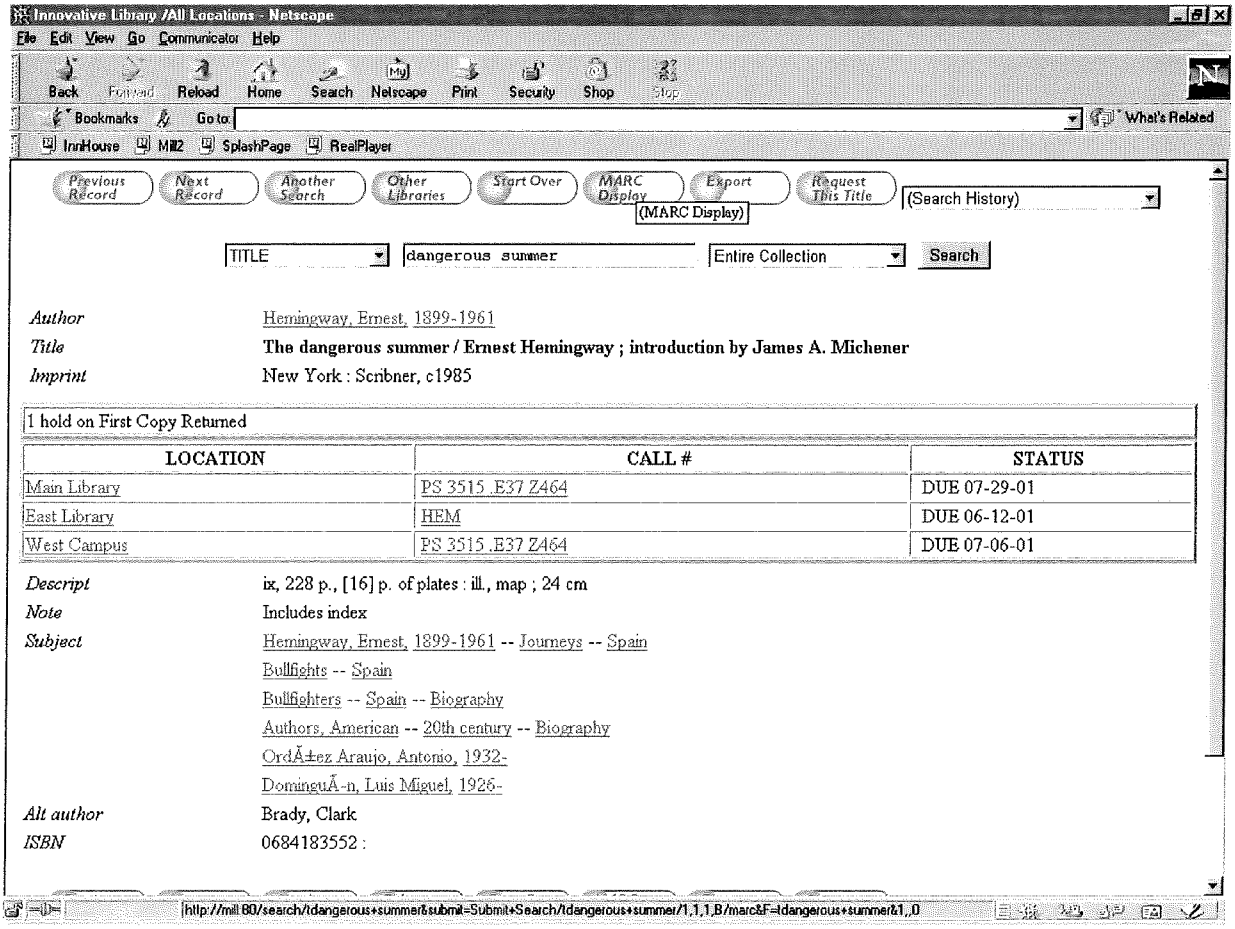
Because the Millennium system offers so many options for customization, Libraries can choose how to best incorporate Millennium for use on ADA-compliant workstations, as needed.

15. **A**

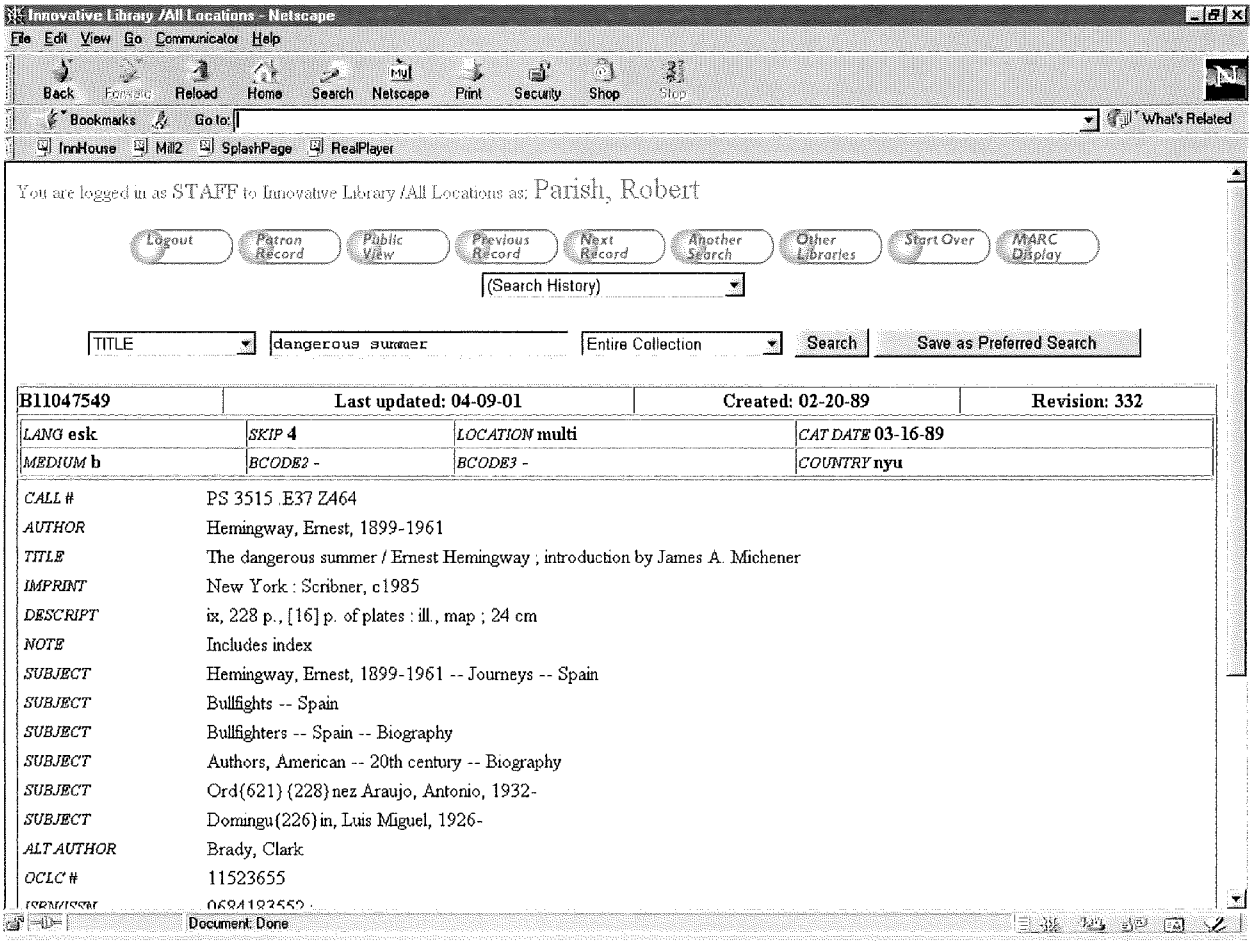
16. **A**

17. **A**

Public and Staff Screen Views indicated below:



Public view of the Bibliographic Record


Innovative Library /All Locations - Netscape
File Edit View Go Communicator Help
Back Forward Reload Home Search Netscape Print Security Shop Stop
Bookmarks Go to: What's Related
InnHouse Mill2 SplashPage RealPlayer
You are logged in as STAFF to Innovative Library /All Locations as: Parish, Robert
Logout Patron Record Public View Previous Record Next Record Another Search Other Libraries Start Over MARC Display
(Search History)
TITLE dangerous summer Entire Collection Search Save as Preferred Search
B11047549 Last updated: 04-09-01 Created: 02-20-89 Revision: 332
LANG esk SKIP 4 LOCATION multi CAT DATE 03-16-89
MEDIUM b BCODE2 - BCODE3 - COUNTRY nyu
CALL # PS 3515 .E37 Z464
AUTHOR Hemingway, Ernest, 1899-1961
TITLE The dangerous summer / Ernest Hemingway ; introduction by James A. Michener
IMPRINT New York : Scribner, c1985
DESCRIPT ix, 228 p., [16] p. of plates : ill., map ; 24 cm
NOTE Includes index
SUBJECT Hemingway, Ernest, 1899-1961 -- Journeys -- Spain
SUBJECT Bullfights -- Spain
SUBJECT Bullfighters -- Spain -- Biography
SUBJECT Authors, American -- 20th century -- Biography
SUBJECT Ord(621)(228)nez Araujo, Antonio, 1932-
SUBJECT Domingu(226)in, Luis Miguel, 1926-
ALT AUTHOR Brady, Clark
OCLC # 11523655
Document: Done

Staff view of the Bibliographic Record

18. A

19. A

20. A

21. A

22. A

23. A

24. A

25. A

RESPONSE: Millennium supports a Library-defined variant spellings list to support automatic retrieval of synonyms, or correct retrieval despite common spelling mistakes. The Library chooses to pair words up so that a search for one will automatically also retrieve records containing the others (e.g., searches for "labor" can retrieve "labour," etc.). Millennium is delivered with a special synonym table of approximately 500 words to which the Library can add additional word pairs.

26. A

27. A

28. A

29. A

30. A

31. A

32. A

33. N

RESPONSE: Millennium's Advanced Keyword Search option utilizes the AltaVista search engine to retrieve data quickly without requiring the use of stopwords.

Traditionally, stopwords were necessary in order to protect the server from expending a great deal of resources on a single search that was likely to retrieve a less than useful result set. With significant advances in both hardware and search engine software, this becomes less necessary. Furthermore, with advanced operators such as "proximity" and "adjacency" stopwords become more of a liability than an asset. For example, not to index the word "law" with a traditional search engine may makes sense; however with an advanced search engine, that would negate the ability to utilize a more specific search such as "law within 5 terms of space published after 1995."

The AltaVista search engine currently used by Millennium is able to provide complete access to all terms or combinations of terms within the database without any negative impact on overall system performance. Innovative is confident that the Millennium Web OPAC provides dynamic search functionality, and is able to protect users from the frustration of "dead searches."

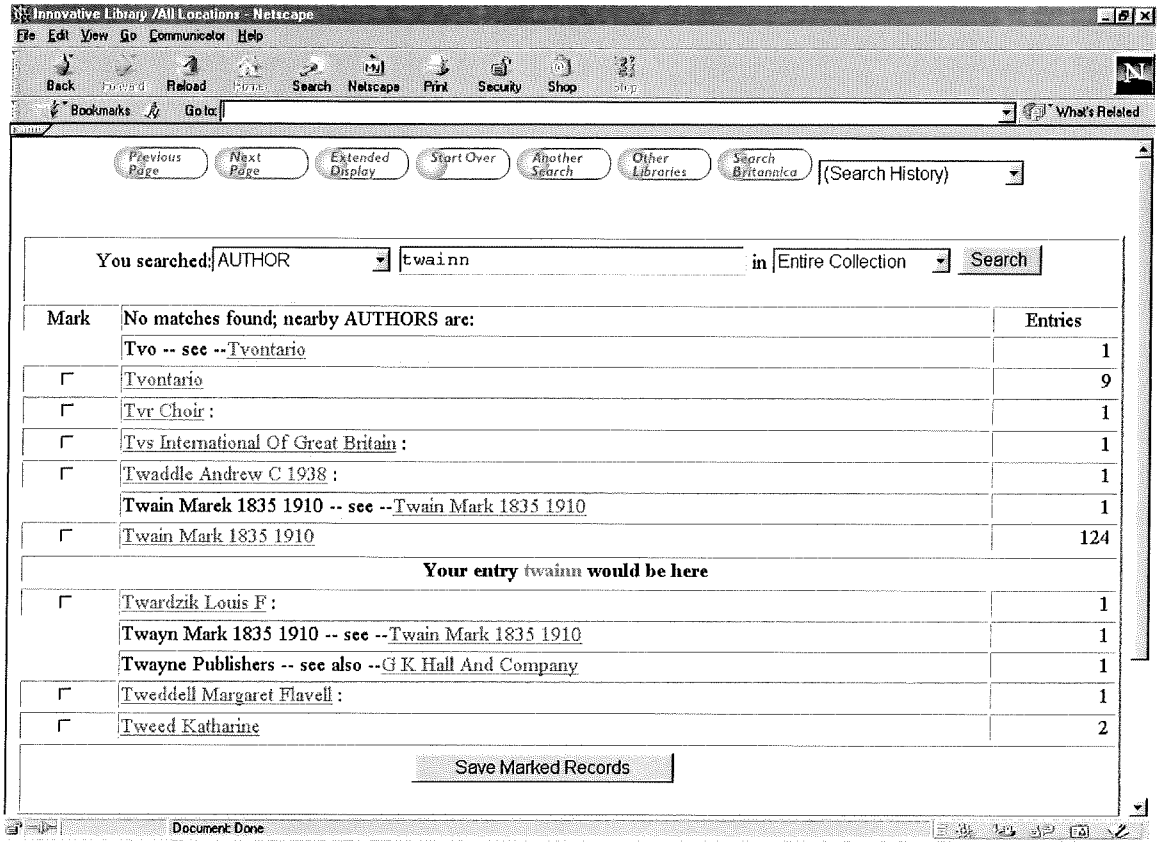
34. **AD**

RESPONSE: Normally, "see under," "broader term" and "narrower term" references are displayed as SEE ALSO references in Millennium.

However, if the Library wishes, Millennium can display a message indicating whether the term referred to in a SEE ALSO reference is a "broader" or "narrower" term. Millennium determines if a reference is broader or narrower based on the contents of subfield "w/0" in the 5XX field. If subfield "w" contains "g," Millennium displays "See also narrower term..." If it contains "h," Millennium displays "See also broader term..." Note that Millennium can only display this additional information for MARC 21 authority records that contain "g" or "h" in the 5XX subfield "w/0."

35. **A**

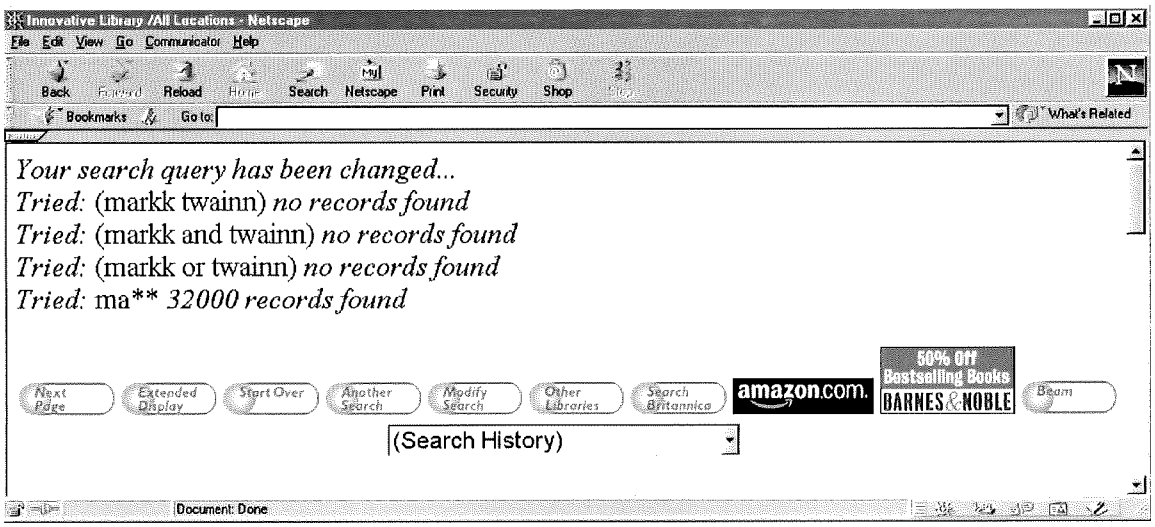
RESPONSE: In Millennium, all searches retrieve positive responses. Heading or phrase searches that do not result in direct hits are taken to an "index browse" display of the closest logical point in the index searched and the surrounding entries are displayed, as illustrated in the author search for "Twainn" in the screen shot below:


Innovative Library /All Locations - Netscape
File Edit View Go Communicator Help
Back Forward Reload Home Search Netscape Print Security Shop Stop
Bookmarks Go to:
What's Related
Previous Page
Next Page
Extended Display
Start Over
Another Search
Other Libraries
Search Britannica
(Search History)
You searched: AUTHOR twainn in Entire Collection Search
Mark
No matches found; nearby AUTHORS are:
Entries
Tvo -- see --Tvontario 1
Tvontario 9
Tvr Choir : 1
Tvs International Of Great Britain : 1
Twaddle Andrew C 1938 : 1
Twain Marek 1835 1910 -- see --Twain Mark 1835 1910 1
Twain Mark 1835 1910 124
Your entry twainn would be here
Twardzik Louis F : 1
Twayn Mark 1835 1910 -- see --Twain Mark 1835 1910 1
Twayne Publishers -- see also --G K Hall And Company 1
Tweddell Margaret Flavell : 1
Tweed Katharine 2
Save Marked Records
Document: Done

When using Millennium's Advanced Search capabilities, searches that fail to retrieve a direct hit are automatically processed until a results set is returned to the user. The search string is processed according to set pattern as follows:

1. **the search is processed using the default adjacency operator**
2. **the search is processed using the operator "and"**
3. **the search is processed using the operator "or"**
4. **the search is processed without user-selected search limits**
5. **(optional) the search is processed with an open-ended truncation of the first word**

Millennium also provides the user with feedback as to which search string was submitted to the system to retrieve a positive response, as illustrated in the keyword search for "Markk Twainn" in the screen shot below:



36. A

RESPONSE: Please see the response to item D.35, above

37. A

38. A

39. A

40. A

41. N

RESPONSE: The Web OPAC display constants within the field are hard coded.

42. A

43. A

44. A

45. A

46. A

47. A

C1. PAC – SEARCHING

Innovative's Advanced Search Engine brings the power and functionality of an Internet search engine to the Library's catalog. With its combinable search functions, Advanced Searching provides accurate, exact information immediately, from anywhere in the Web OPAC.

Key features include:

KEYWORD SEARCHES

- by field (global or specified)
- in combinations (from different fields)
- by any letter, indexed symbol or number (from a single character to unlimited word lengths, including characters such as "#" and "*")
- ability to pre-limit searches

ADJACENCY SEARCHES

- within any indexed or specified field
- from any point in a field
- in combination with full range of Boolean operators

PROXIMITY SEARCHES

- default proximity (within ten words) using the "near" operator
- user-defined proximity using the "within x" operator
- locatable in specified or reverse order

RELEVANCE RANKING

- by inverse word frequency
- by phrase position in bibliographic records
- Library can customize the default hierarchy of indexed fields
- relevance is computed using the AltaVista relevance ranking algorithm
- relevance display to the user can be as a percentage or graphical as defined by the Library

WILDCARDS AND TRUNCATION

The Advanced Search supports internal truncation, right truncation and wildcards. Wildcards can be confined to a single character or to up to five characters; right truncation can be a single character, 1-5 characters or open-ended.

Searching the Millennium catalog using the Advanced search provides users extended support for wildcard searching in all kinds of searches. Wildcards are limited to the following characters:

Asterisk (*)	**After 2 specified characters will search for matches in up to 5 trailing letters.**
Question Mark (?)	**After 2 specified characters will match exactly one more character.**
Double Asterisk (**)	**More flexible as it will search for matches for an unlimited number of trailing characters.**

Users can also use the wildcard characters interchangeably and more than once in the same search string. For example, the search term:

ser*ip?t*

could possibly find the word "serendipity."

Advanced searches do not support the implicit right truncation found in heading searches such as author, title, and subject.

Synonyms
Millennium supports a Library-defined variant spellings list to support automatic retrieval of synonyms, or correct retrieval despite common spelling mistakes. The Library chooses to pair words up so that a search for one will automatically also retrieve records containing the others (e.g., searches for "labor" can retrieve "labour," etc.). Millennium is delivered with a special synonym table of approximately 500 words to which the Library can add additional word pairs.

1. **A**

   RESPONSE: The Millennium Web OPAC offers the following defaults as options for limiting searches when the button option Limit this Search is selected:

   - **Language**
   - **Material type**
   - **Words in the author**
   - **Words in the title**
   - **Words in the subject**
   - **Publisher**

- **Where item is located (in the Library's list of locations)**
- **Year of publication**
- **Range of years of publication**
- **Sort results by year**

Searches may be limited by any MARC field as determined by the Library in consultation with Innovative. Both fixed- and variable-length fields may be used as limit criteria.

The Millennium system permits such limitations either before executing the search, as part of the Millennium-based Advanced Search, or afterwards, once a user has retrieved a set of records. The Advanced Search is an Innovative-installed AltaVista search engine, mounted directly within the Millennium software. This powerful search engine is the same one that permits swift indexing of the entire World Wide Web, and provides this same indexing and swift retrieval capabilities to the Millennium system, including all standard AltaVista search input strategies, including relevancy searching.

2. **A**
3. **A**
4. **A**
5. **A**

RESPONSE: In indexing, Millennium's normalization rules treat all searches as lower case. The ampersand (&) is treated as if it were the word "and" spelled out, apostrophes are removed, and most other punctuation marks are replaced by spaces for purposes of searching. Millennium treats repeated spaces or repeated punctuation marks (other than the ampersand and the apostrophe) as a single space, e.g., " --- " is treated as " ". Whether or not these punctuation marks are included has no effect on a search. Leading articles are ignored (based on MARC tag indicator), as are diacritics such as accent marks.

6. **A**
7. **A**
8. **A**
9. **A**
10. **A**
11. **A**

12. A

13. A

14. A

15. A

RESPONSE: Although not currently available as Web OPAC search commands, the use of relational operators such as "less than" and "greater than" is supported using the Limit Search feature of the Web OPAC. Additionally, staff searching using the Create Lists function enables an authorized operator to retrieve records using the operations above.

16. A

17. A

18. A

19. A

20. A

21. A

22. A

23. A

24. A

25. A

C2. PAC – Search Results

1. A

2. A

3. A

4. A

5. A

6. A

7. A

8. A

9. A

10. A

11. A

12. A

13. A

14. A

15. A

16. A

C3. PAC – Printing and Downloading

1. A

2. A

3. A

4. A

5. A

6. A

C4. Access to Other PACs and Databases

1. A

2. **A**

   RESPONSE: Access to the Web-based OPAC is supported via standard browsers such as Internet Explorer and Netscape.

3. **A**
4. **A**
5. **A**
6. **A**
7. **A**
8. **A**
9. **A**

E. Serials

1. **A**
2. **A**
3. **A**
4. **A**
5. **A**
6. **A**
7. **A**
8. **A**
9. **A**
10. **A**

RESPONSE: Millennium displays detailed holdings in an easy to understand, graphic format. Gaps in holdings can be indicated by the status of individual issues, (e.g., "EXPECTED," "MISSING," "OUT OF PRINT.") The Library defines the valid statuses that can apply to individual issues.

The Library can display holdings line-by-line or in Kardex-style format; Holdings can be displayed as detailed holdings or condensed into holdings statements.

11. **N**

12. **A**

13. **N**

RESPONSE: Millennium can accommodate multiple issues of a serial on a single check-in screen and multiple check-in records on a single bibliographic record. However, each check-in card must be entered individually from this screen in the case of multiple copies in separate check-in records.

14. **N**

15. **A**

16. **A**

17. **A**

18. **A**

19. **A**

20. **A**

21. **A**

22. **A**

F. Statistics

Millennium' Web-based Circulation reports include the following report categories:

- **Circulation Statistics**
- **Cross Tabulation**

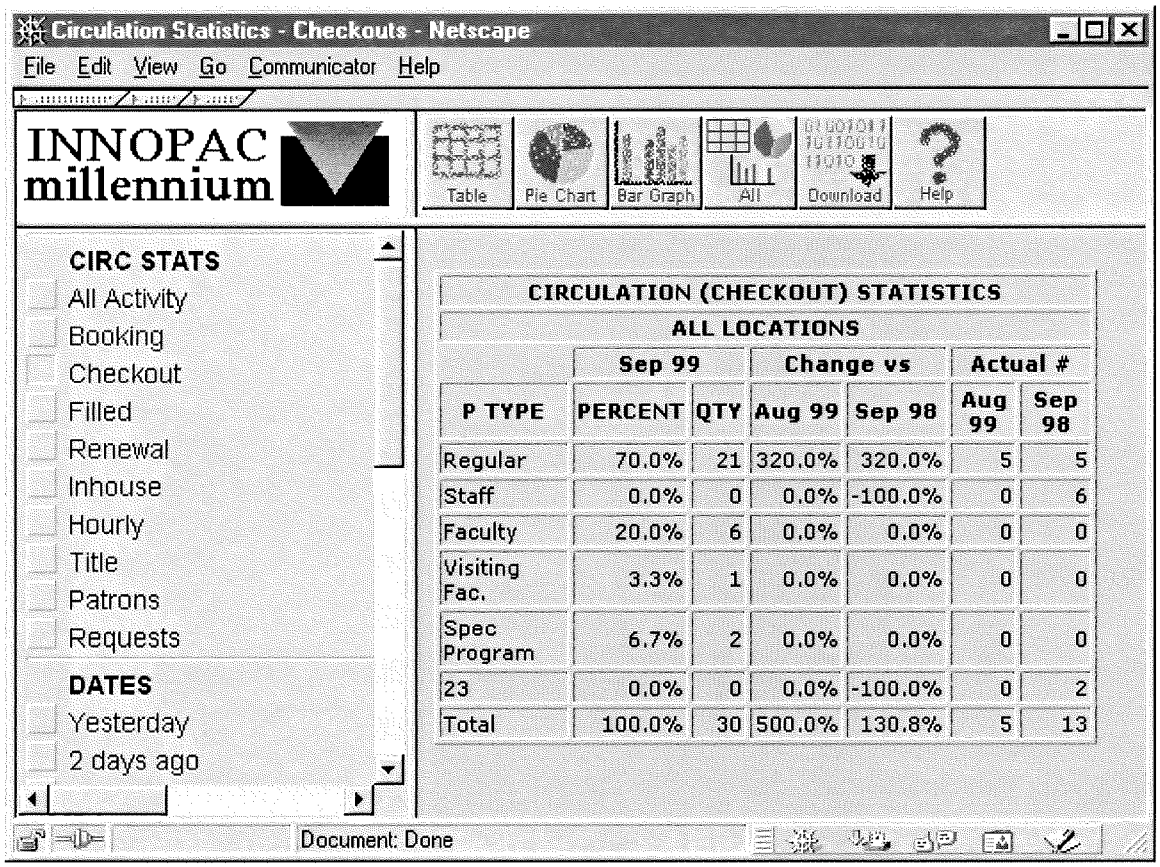
Circulation Statistics detail the various kinds of circulation activity by workstation, by location, and by time of day. Cross Tabulation reports detail circulation by various patron and item categories and provide automatic comparisons of the present month

with last month as well as the same month last year. They can also be produced for various time periods such as one day, month-to-date and year-to-date.

The Web-based Circulation Statistics provide information on the following:

- **Circulation activity by terminal, location, or time, sorted by patron or item codes**
- **Booking activity, sorted by patron or item codes**
- **Check-out activity, sorted by patron or item codes**
- **Filled holds, sorted by patron or item codes**
- **Renewal activity, sorted by patron or item codes**
- **In-house use statistics, sorted by location**
- **Hourly check-out activity**
- **Circulation activity, sorted by title**
- **Patrons with items checked out**
- **Requests made by Web OPAC users**

A sample circulation report can be seen below:



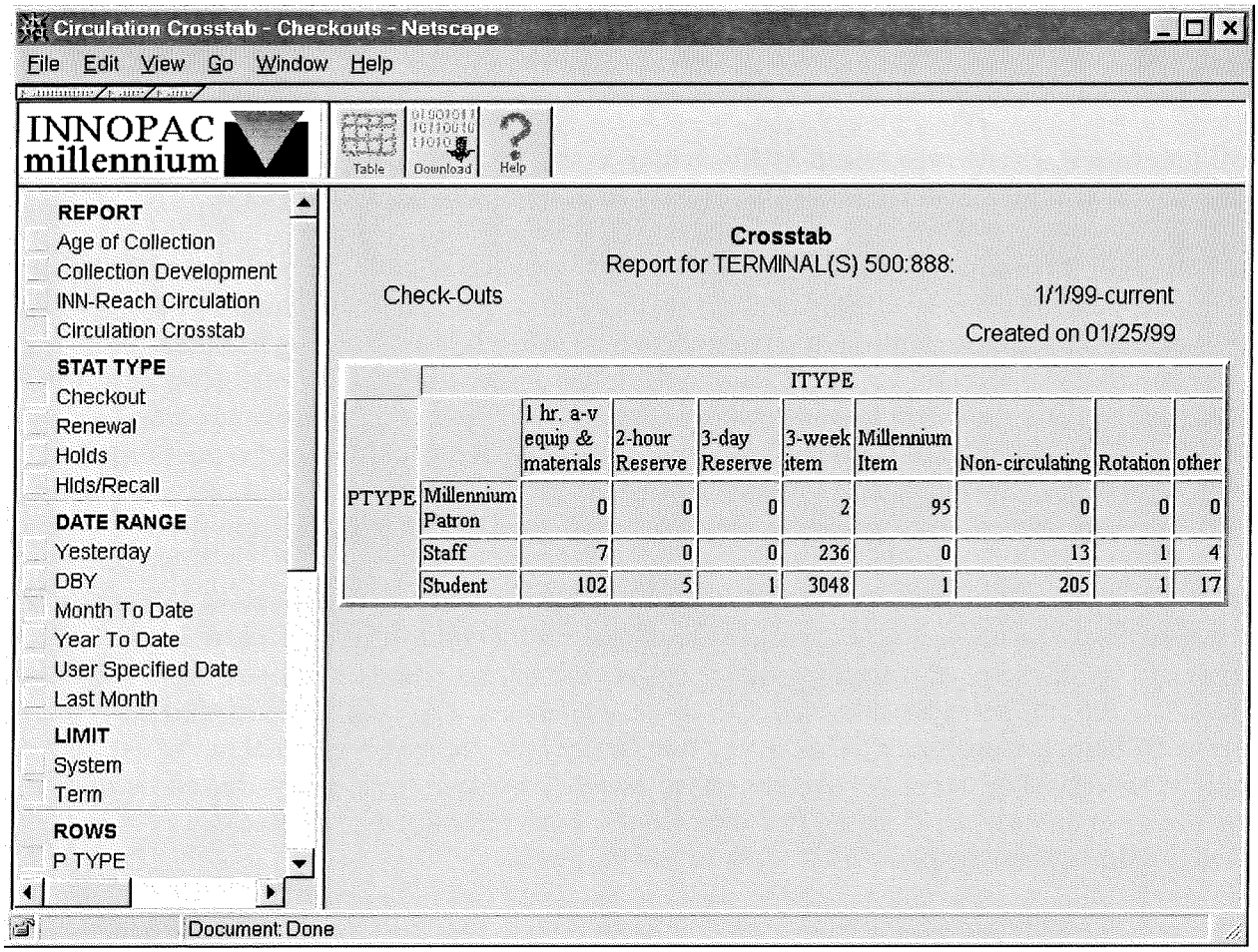
CIRCULATION (CHECKOUT) STATISTICS

ALL LOCATIONS

	Sep 99		Change vs		Actual #	
P TYPE	PERCENT	QTY	Aug 99	Sep 98	Aug 99	Sep 98
Regular	70.0%	21	320.0%	320.0%	5	5
Staff	0.0%	0	0.0%	-100.0%	0	6
Faculty	20.0%	6	0.0%	0.0%	0	0
Visiting Fac.	3.3%	1	0.0%	0.0%	0	0
Spec Program	6.7%	2	0.0%	0.0%	0	0
23	0.0%	0	0.0%	-100.0%	0	2
Total	100.0%	30	500.0%	130.8%	5	13

The Cross Tabulation report allows the Library to create custom reports on circulation activity over a specified time period, based on selected Millennium fields. The operator first selects the STAT TYPE, followed by a DATE RANGE, and can, if desired, LIMIT the

report to a specific workstation or a group of workstations. The operator then selects a specific Millennium field for the ROWS and COLUMNS of the report. In the sample shown below, circulations for specific item types (I TYPE) to specific patron types (P TYPE) are displayed. For example, the number of check-outs for 2-hour reserve items to students is five.



		ITYPE							
PTYPE		1 hr. a-v equip & materials	2-hour Reserve	3-day Reserve	3-week item	Millennium Item	Non-circulating	Rotation	other
	Millennium Patron	0	0	0	2	95	0	0	0
	Staff	7	0	0	236	0	13	1	4
	Student	102	5	1	3048	1	205	1	17

Ad-hoc reports are produced by Millennium's easy-to-use report generator and statistical package (the Create Lists and Create Statistical Reports functions), which is capable of identifying any subset of the database (of patron records, bibliographic records, item records, etc.) by combining, in a full Boolean fashion, any values contained in any data elements therein. The resulting records can be sorted into any sequence and then listed with any or all data elements displaying, or be counted by any of the values in any of the fixed length data fields.

Please refer to Millennium Standard Reports, included with this response, for descriptions of other reports included with the system.

1. A

2. A
3. A
4. A

G. Reports

Millennium is widely recognized by librarians as the leading integrated system in terms of management information available to library managers and administrators.

Millennium's Web Management Reports module provides a complete and comprehensive set of reports that can be displayed as a table, graph or pie-chart and can also be downloaded for incorporation in a spreadsheet or other third-party applications. In addition to these standard reports, Millennium has a very powerful report generator, the Create Lists function, that lets authorized Library staff create lists of records based on user-specified criteria that can then be used with Millennium's statistical report function. The report generator not only requires no programming experience to use, it requires very little training. No external programming language, package or DBMS is required.

Millennium's report generator is an integral part of the System Management Information module and runs using a quick, natural-language and menu interface. Create Lists provides a full range of search operators (e.g, equal to, not equal to, greater than, less than, between, has, does not have, exists, does not exist) for searching all fields in all database records. Search results can be sorted by any field in the records contained in the list and can be displayed on-screen or output either as entire records or as user-selected fields to a printer, e-mail or as a delimited file. The Create Lists function is available to any authorized user from any workstation on the network.

The standard Millennium system comes with 80 review files for storing Library generated lists that collectively will hold up to 1,250,000 records (additional review files may be purchased). Each list is stored on Millennium until a Library staff person removes it from the system; i.e., until the review file is "emptied." Records stored in these review files can be used as input for other Millennium functions (e.g., Update Records, Export).

Millennium's reports fall into two broad categories:

a) **Regular reports: available online at any time. For example, the circulation module reports circulation activity by patron type, by item type, by call number, by location, by workstation, time of day, etc.**

b) **Ad-hoc reports: prepared on demand. Examples include reports that show what percentage of items or titles of each format appear in each group of call numbers.**

Please refer to Millennium Standard Reports, included with this response, for descriptions of standard reports available on the Millennium system.

1. **A**
2. **A**
3. **A**
4. **A**
5. **A**
6. **A**
7. **A**
8. **A**
9. **A**
10. **A**
11. **A**
12. **A**
13. **A**
14. **A**
15. **A**
16. **A**
17. **A**
18. **A**
19. **A**
20. **A**
21. **A**
22. **A**
23. **A**
24. **A**
25. **A**

26. A

27. A

28. A

29. A

H. Inventory

1. A

RESPONSE: Millennium's fully integrated Inventory Control provides the capability to print out the shelf list for any location, showing the circulation status for each item. It also can be used to read in a list of barcodes (e.g., from a portable scanner used to read the shelves) and to produce a report that compares this information to the shelf list and circulation files. The report includes items shelved out of order, items missing from the shelves but not checked out, items checked out but on the shelves, etc. This product can also insert the inventory date into each item record.

2. A

3. A

4. A

5. A

I. Detention Center Library Requirements

1. A

RESPONSE: This functionality is accomplished through our Patron API (URL) interface with third party software such as CybraryN (they have a Web site) which may allow you to accomplish the goals of the library in controlling the terminal use time and the access to Web resources.

2. A

3. A

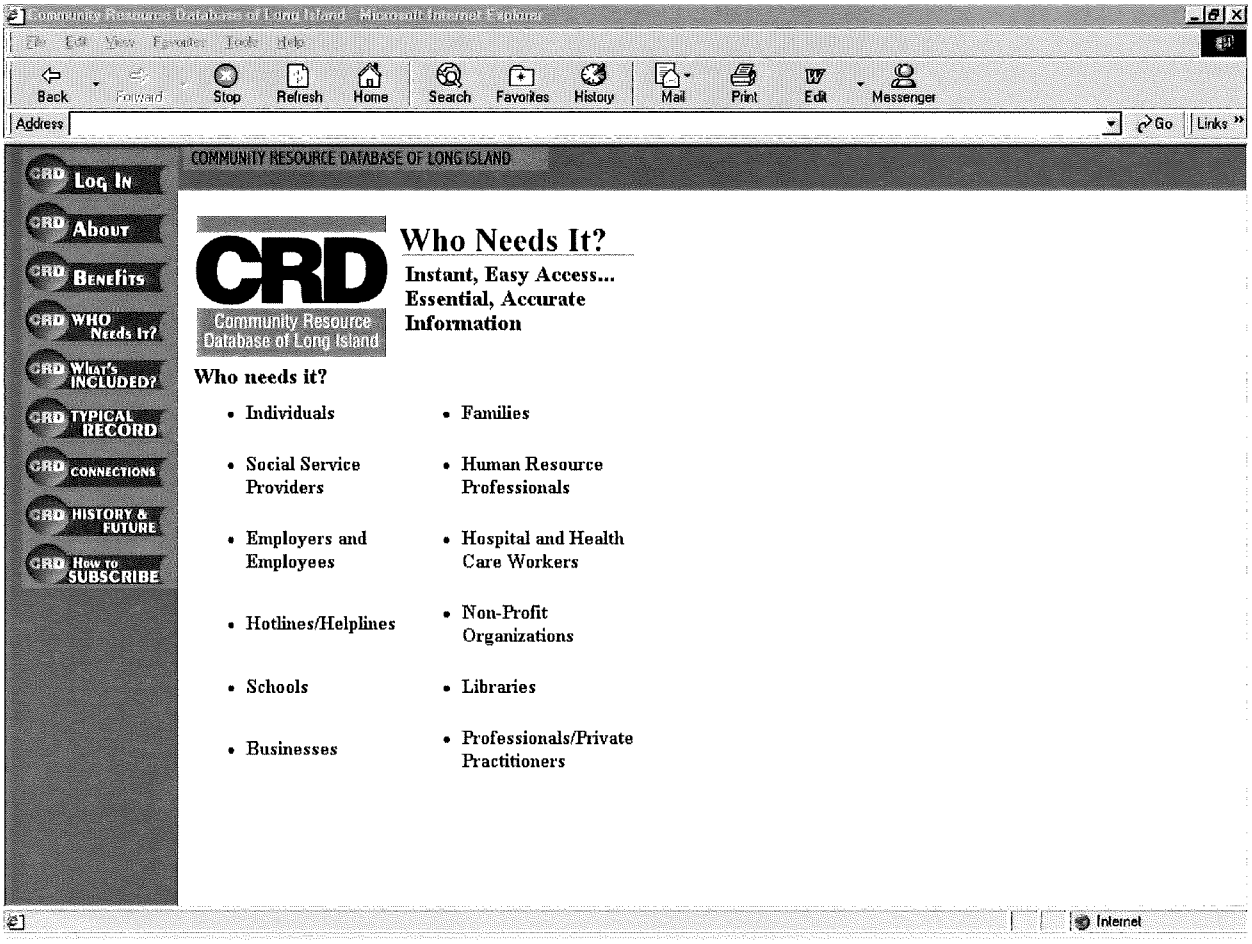
4. A

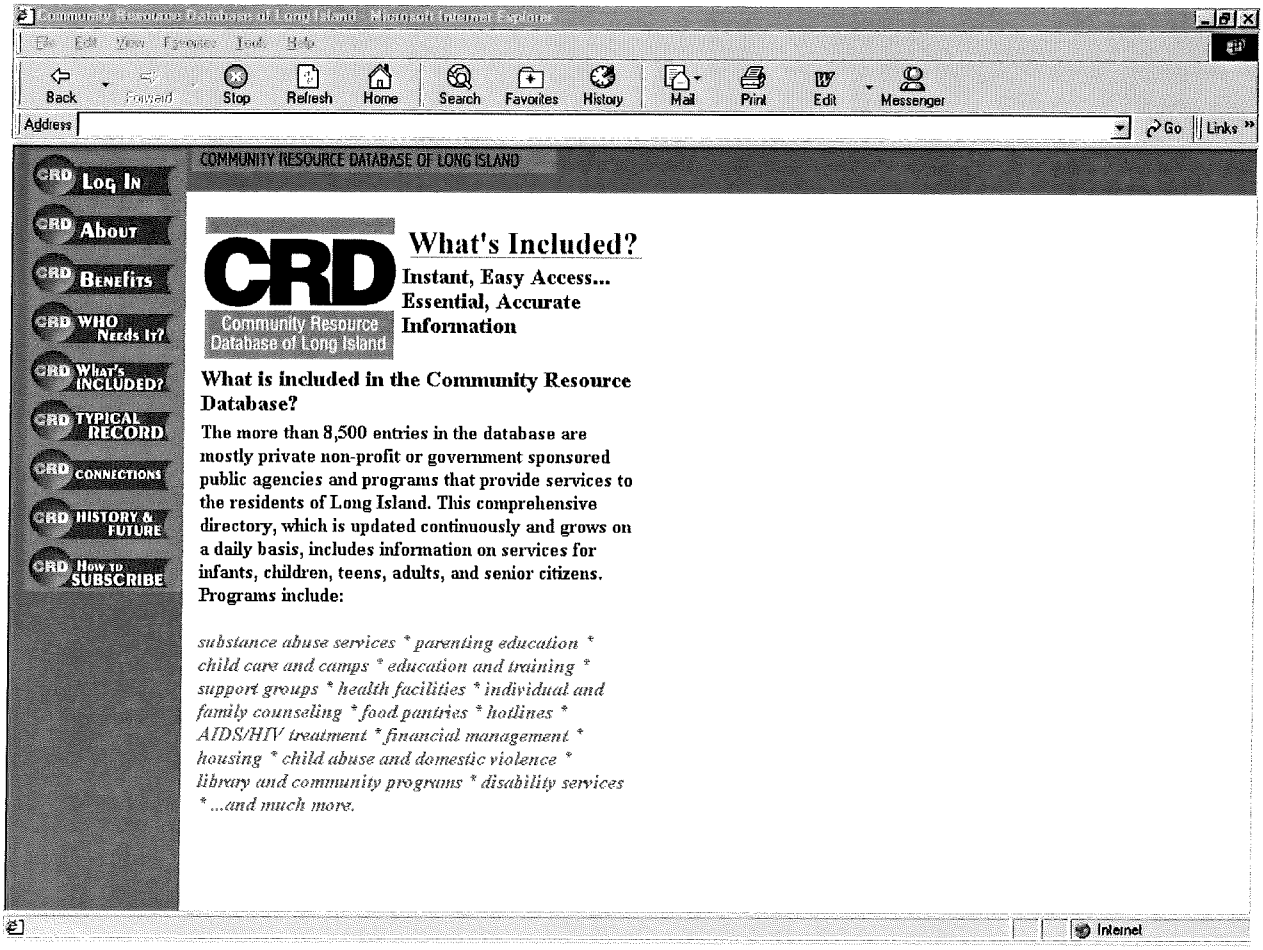
5. **A**

6. **A**

7. **A**

J. Community Information




Back
Forward
Stop
Refresh
Home
Search
Favorites
History
Mail
Print
Edit
Messenger
Address
Go
Links
COMMUNITY RESOURCE DATABASE OF LONG ISLAND
CRD Log In
CRD About
CRD Benefits
CRD WHO Needs It?
CRD What's INCLUDED?
CRD TYPICAL RECORD
CRD CONNECTIONS
CRD HISTORY & FUTURE
CRD How to SUBSCRIBE
CRD
Community Resource Database of Long Island
What's Included?
Instant, Easy Access... Essential, Accurate Information
What is included in the Community Resource Database?
The more than 8,500 entries in the database are mostly private non-profit or government sponsored public agencies and programs that provide services to the residents of Long Island. This comprehensive directory, which is updated continuously and grows on a daily basis, includes information on services for infants, children, teens, adults, and senior citizens. Programs include:
substance abuse services * parenting education * child care and camps * education and training * support groups * health facilities * individual and family counseling * food pantries * hotlines * AIDS/HIV treatment * financial management * housing * child abuse and domestic violence * library and community programs * disability services * ...and much more.
Internet

RESPONSE: The optional Community / Campus Information Databases software provides the capability for the Library to build a non-bibliographic database of campus or community information and to make that database available to users of the Web OPAC with the same types of indexes and displays that are available in the Library's regular database. The product includes up to 8 phrase indexes and a keyword index. The data may be stored in the MARC Community Information Format or a simpler format as the Library desires. Millennium's Create Lists function (with 10 review files) is included with the database.

1. **A**

2. **A**

3. A

4. A

5. A

6. A

7. A

8. A

9. A

10. A

11. A

12. A

13. A

14. A

15. A

16. A

K. Training

1. A

RESPONSE: Innovative Interfaces will train staff on-site at the Library. Staff of different levels (from administrators to librarians to support staff) may attend the on-site training.

Innovative recommends training sessions of 6-8 persons (the actual number can be negotiated with the trainer). Training is conducted on a module-by-module basis by an experienced Innovative Interfaces trainer. This usually includes several trips to the Library, as installation of each module is complete and the Library is ready to move on to the next phase of its automation project. An exact schedule will be worked out between the Library and the Implementation team.

The Library is responsible for selecting staff to receive training. In many cases, these people later act as in-house trainers for the rest of Library staff. If the Library wishes to videotape or record the sessions for later review, this can be arranged with the trainer.

A detailed recommended training outline, listing the topics to be covered, is included in the "Training Outline" section of this response.

2. **A**

3. **A**

4. **A**

5. **A**

RESPONSE: Most Millennium sites choose to conduct training on the live database. However, a separate training system can be purchased at the Library's request. If the Library chooses not to purchase a separate training database, test/training records can be suppressed from public display and easily maintained in order to keep them separate from permanent records.

6. **A**

RESPONSE: As part of training, specific documentation for modules may be provided using hard copies.

7. **A**

RESPONSE: Innovative now offers Web-based User Manuals. The new documentation debuted at ALA Midwinter 2001 to replace the current User Manuals on Folio Views, and additional updates will be available within Millennium Release 2001. The new Web-based User Manuals reside directly on the Millennium server for instant access from any authorized workstation.

The Millennium Web-based User Manuals will be automatically updated whenever the Library updates or upgrades their current system to the latest Innovative software. There is no need to install any additional documentation software. Any library staff member who has access to a standard browser and Innovative software will be able to view the Web-based documentation. Library staff can access the new Millennium User Manuals in two ways:

From within the Millennium Acquisitions, Cataloging, Circulation, or Serials modules, by launching documentation via the Help menu

From any standard browser window, by entering "http://<your_server>/manual" in the URL field, where "<your_server>" is the name of the Library's Millennium server.

The centralized Web-based model provides Libraries with documentation that is as easy and efficient to use as the Millennium system itself. Additionally, the manuals will be archived on Innovative's CSDirect customer support Web site.

Innovative is constantly improving and streamlining our products and our services to maximize the customer benefit of an integrated library automation system. This new documentation allows Innovative Libraries to take full advantage of Millennium's Web-based technology.

8. A

9. A

Barcodes

1. A

RESPONSE: Millennium is very flexible in its handling of patron and item barcodes. The system can be configured to recognize virtually any alphanumeric pattern, such as a social security number, as a valid barcode.

Innovative Interfaces recommends that barcodes be 14 digits long with a modulus 10 check digit. Millennium supports validity checking of this format. The most widely known are the Codabar and Code 39 formats. Other formats may also be supported by Millennium.

2. A

ADD ALTERNATES

I. Acquisitions and Fund Accounting

RESPONSE: Millennium's Acquisitions module provides great flexibility throughout the selection, ordering and receipt process. It includes the ability for multiple staff members to create recommended lists of items for purchase that can be reviewed by others who have the final selection authority and who can generate the purchase request.

The Millennium Acquisitions module handles all types of orders, as well as gifts and exchanges. In addition to new orders for books (and even library supplies), Millennium can handle standing orders, subscriptions, blanket orders, approvals, depository items, memberships, replacements, prepaid items, desiderata, etc.

Basic components of the Acquisitions module are:

- **Ordering**
  Millennium supports various ordering methods, including:
  - **Downloading bibliographic and order information directly from a bibliographic utility workstation (such as OCLC, RLIN, ISM, etc.).**
  - **Locating a bibliographic record via Z39.50 and downloading it for ordering.**
  - **Keying orders on a Millennium workstation.**
  - **Transmitting orders electronically, over telephone lines, or the Internet (to vendors who have this capability).**
  - **Printing purchase orders.**

- **Receiving**
  Millennium supports recording the receipt of an item:
  - **As a separate receiving operation.**
  - **As a combined receiving / invoice-keying operation.**

  The receiving function also supports:
  - **Recording of partial receipts.**
  - **Recording of vendor notes and correspondence.**
  - **Claiming of orders that have not arrived by the time they should have.**
  - **Claiming statistics and reports.**
  - **Identification of existing holds on on-order items to identify items for possible quick processing.**

- **Fund Accounting**
  A basic Millennium system supports 750 fund categories by which the library may track expenditures. Each fund may be further defined with up to 7 sub-funds. The fund file may be optionally expanded to 3,600 funds. For each fund, Millennium automatically tracks:
  - **Appropriations.**
  - **Year-to-date expenditures.**
  - **Current outstanding encumbrances.**
  - **"Free" and "cash" balances.**

  Other fund accounting features include:
  - **Accounting and fund activity reports.**

  - **Fiscal closing procedures to accommodate the various ways libraries account for monies across fiscal years.**

- **Vendor records with accounting and invoice information.**
- **Accounting information in order records (up to 50 charges can be stored in each order record, especially useful in serials and standing orders).**
- **Transfer of monies from one fund to another.**
- **Allows charges to be made directly to funds without having to be attached to an order record (e.g., a charge for a search service such as Dialog).**
- **Handles deposit accounts.**
- **Converts foreign currencies, both when the order is placed and when it is paid.**
- **Electronic invoice interfaces (with vendors capable of providing them, such as Faxon, EBSCO, Blackwell, Baker & Taylor, Coutts, Midwest, Yankee, etc.)**
- **Optional multiple accounting units, designed to accommodate entirely separate fund files and order records for different institutions or departments using a single Millennium system with a shared bibliographic database.**

1. A
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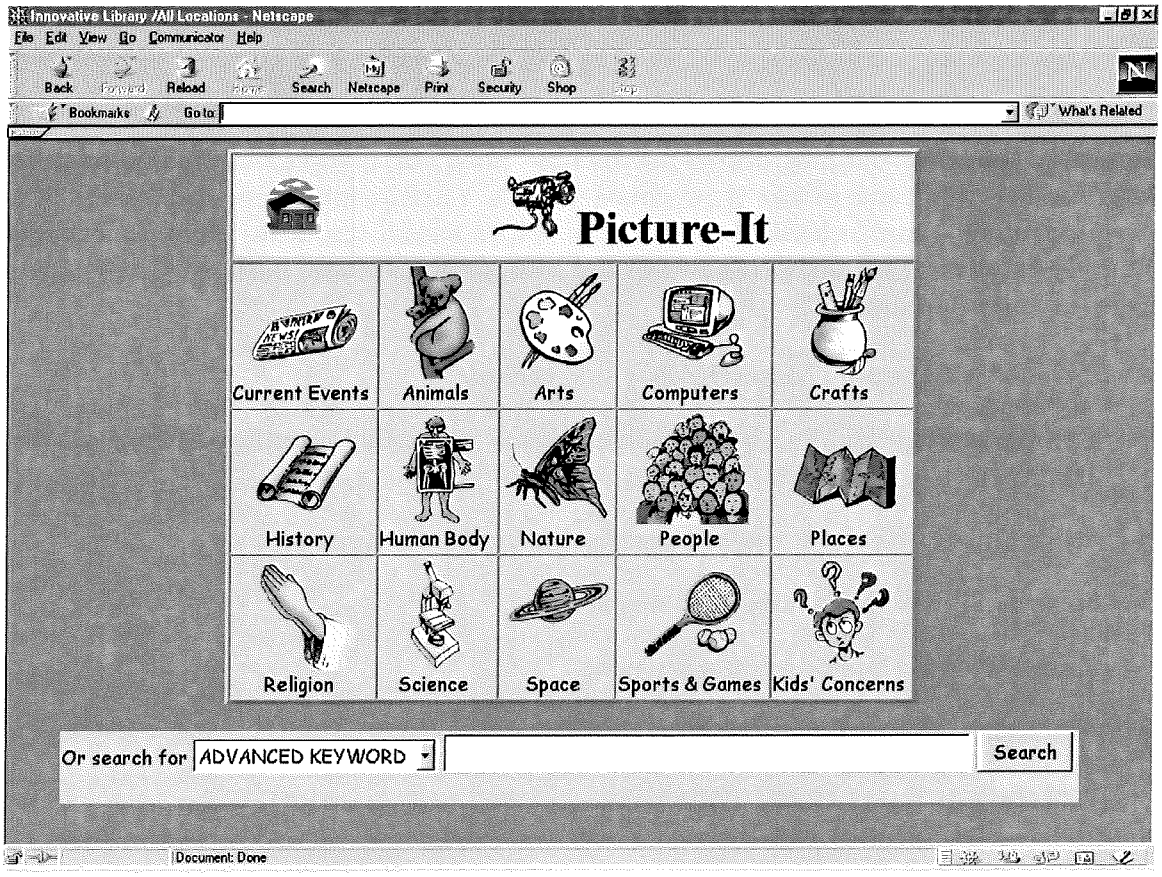
46. A

II. Children's Catalog

RESPONSE: Innovative Interfaces' KidsOnline module offers younger patrons a fun and user-friendly Web OPAC that provides them with intuitive and easily configured screens. The KidsOnline module includes a standard set of menus and pictures (including hundreds of images in GIF format) as well as a full suite of Help screens that explain terms and functions just for children. Younger patrons can also search specially scoped children's collections or perform searches pre-limited to juvenile records and effortlessly access Features Lists.

KidsOnline runs on completely independent Web server software; no additional central site hardware is required. Fully integrated with the Millennium database, KidsOnline allows staff to customize and configure screens and requires no HTML programming knowledge. The module also includes a KidsOptions file that controls indexing and phrase-searching, along with images, fonts, colors and table columns for every screen.

A sample, customizable KidsOnline search screen can be seen below:



1. A
2. A
3. A
4. A
5. A
6. A

III. Meeting Room Booking

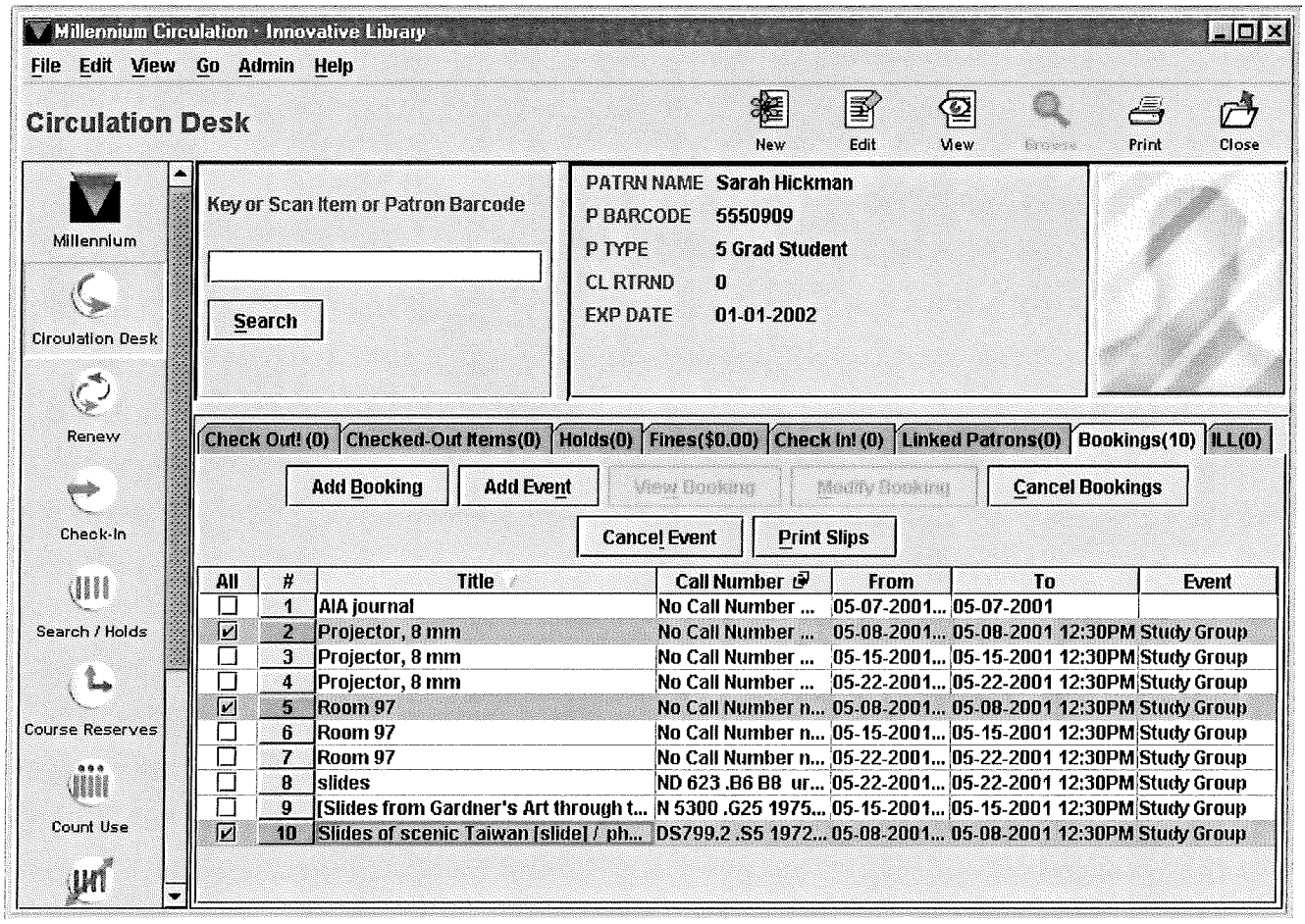
Millennium Materials Booking allows patrons to "book" or reserve library materials for future use. Library items of any type – books, films, VCRs, computers, and even conference rooms – can be booked for hours, days, or weeks at a time. Because Materials Booking is fully integrated with the rest of the Millennium system, both staff and patrons are able to place bookings.

Key features of Millennium Materials Booking include:

- **Complete integration with both Millennium Circulation and the Millennium Web OPAC**
- **Streamlined workflow and self-service booking functionality**
- **Graphical calendar availability displays**
- **Event-oriented bookings management**
- **Automatic generation of booking slips**
- **Full statistical reporting capabilities**

Complete Integration with Circulation

Authorized staff can book materials for patrons directly from the Bookings tab view of the patrons' records within Circulation. Staff can create new bookings, modify and cancel existing bookings, print individual booking slips, add and cancel events, and even add new bookings to an existing event.

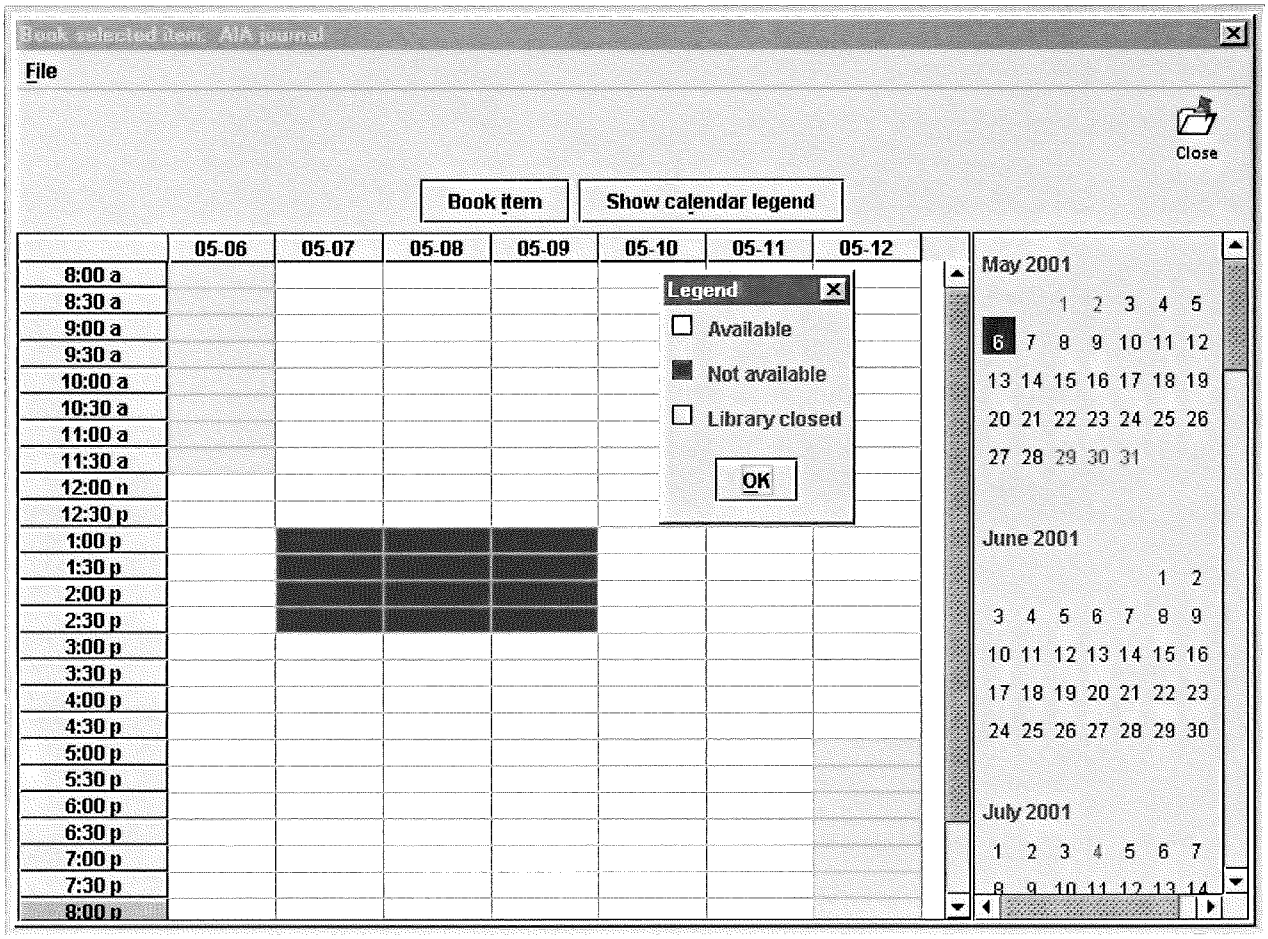

Millennium Circulation - Innovative Library
File Edit View Go Admin Help
Circulation Desk
New Edit View Browse Print Close
Millennium
Circulation Desk
Renew
Check-In
Search / Holds
Course Reserves
Count Use
Key or Scan Item or Patron Barcode
Search
PATRN NAME Sarah Hickman
P BARCODE 5550909
P TYPE 5 Grad Student
CL RTRND 0
EXP DATE 01-01-2002
Check Out! (0) Checked-Out Items(0) Holds(0) Fines($0.00) Check In! (0) Linked Patrons(0) Bookings(10) ILL(0)
Add Booking Add Event View Booking Modify Booking Cancel Bookings
Cancel Event Print Slips
All # Title Call Number From To Event
1 AIA journal No Call Number ... 05-07-2001... 05-07-2001
2 Projector, 8 mm No Call Number ... 05-08-2001... 05-08-2001 12:30PM Study Group
3 Projector, 8 mm No Call Number ... 05-15-2001... 05-15-2001 12:30PM Study Group
4 Projector, 8 mm No Call Number ... 05-22-2001... 05-22-2001 12:30PM Study Group
5 Room 97 No Call Number n... 05-08-2001... 05-08-2001 12:30PM Study Group
6 Room 97 No Call Number n... 05-15-2001... 05-15-2001 12:30PM Study Group
7 Room 97 No Call Number n... 05-22-2001... 05-22-2001 12:30PM Study Group
8 slides ND 623 .B6 B8 ur... 05-22-2001... 05-22-2001 12:30PM Study Group
9 [Slides from Gardner's Art through t... N 5300 .G25 1975... 05-15-2001... 05-15-2001 12:30PM Study Group
10 Slides of scenic Taiwan [slide] / ph... DS799.2 .S5 1972... 05-08-2001... 05-08-2001 12:30PM Study Group

Bookings Tab Display on Patron Record within Millennium Circulation

Complete integration with Millennium Circulation allows booked items to be checked out to the patron using the return time as a due date. The system will automatically send overdue notices, calculate fines, and keep statistics for bookables that aren't returned.

Graphical Calendar Displays

Item calendars display the current schedule of bookings for a specific item through the next 365 days. The system color-codes the item's availability in an easy-to-read calendar display.



Bookable Item Availability Calendar within Millennium Circulation

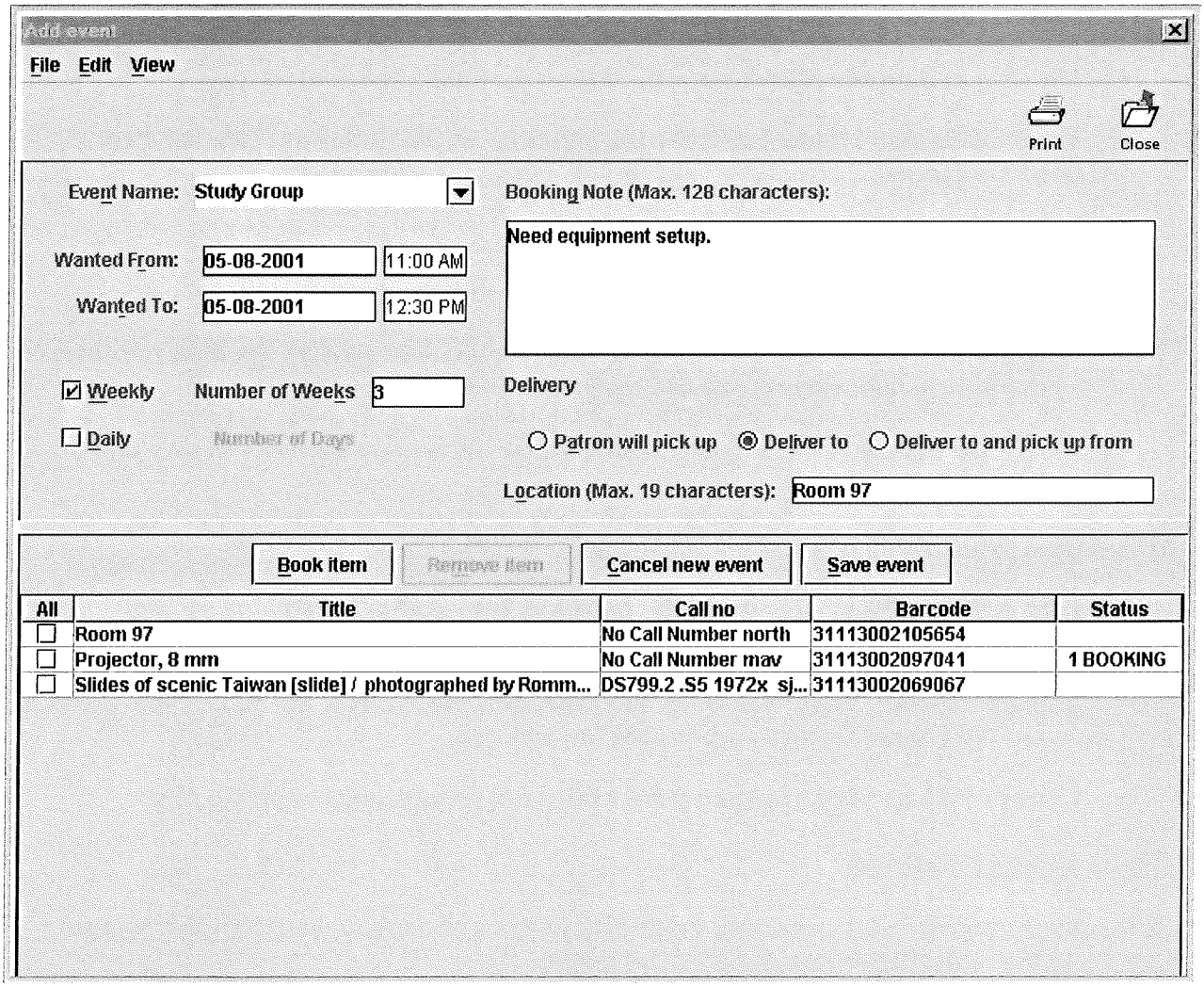
Item calendars reflect the Library's system calendar and regular circulation policies. For example, if the Library is closed on Sundays, the item calendar will show that no bookings can be placed on Sunday. Similarly, if the Library opens at 8 a.m., the first time slot that displays on the item calendar will be 8 a.m.

For the convenience of staff, Millennium Materials Booking can automatically add preparation and follow-up time to a booking period based on a combination of pickup and item locations. The Library can choose whether to allow patrons to pickup their own booked materials.

Event-Oriented Bookings

Millennium Materials Booking uses an event-based approach, allowing staff and patrons to create an event to link a series of bookings. An event can represent any occasion for which one or more items need to be reserved. Events can occur on a single date (e.g., a one-time meeting), or they may occur over several dates (e.g., a conference or a study group that meets once a week for a semester). The system can calculate both daily and weekly event

patterns and automatically place bookings on each item associated for a recurring event; no re-keying of information is required.


Add event
File Edit View
Print
Close
Event Name: Study Group
Booking Note (Max. 128 characters):
Need equipment setup.
Wanted From: 05-08-2001 11:00 AM
Wanted To: 05-08-2001 12:30 PM
Weekly Number of Weeks 3
Daily Number of Days
Delivery
Patron will pick up Deliver to Deliver to and pick up from
Location (Max. 19 characters): Room 97
Book item Remove item Cancel new event Save event
All Title Call no Barcode Status
Room 97 No Call Number north 31113002105654
Projector, 8 mm No Call Number mav 31113002097041 1 BOOKING
Slides of scenic Taiwan [slide] / photographed by Romm... DS799.2 .S5 1972x sj... 31113002069067

New Event Input Screen within Millennium Circulation

All the items associated with a single event can be retrieved using the event name, and all can be updated (or cancelled) with a single command. However, the bookings associated with an event do not necessarily need to share the same data. For example: A weekly lunchtime meeting has booked a conference room and LCD projector for the next six weeks. During Week 4, the meeting must be moved to Tuesday, as that Monday is a holiday. Authorized staff can simply modify the individual bookings associated with Week 4 without affecting the other bookings.

Bookings do not have to be associated with events, but all events must be associated with one or more bookings.

System-Generated Booking Slips

Authorized staff can print booking slips for all locations, or for selected locations. Booking slips can be printed for the current and following day's bookings, or for a specified time period, and each slip contains the following information:

- **The title, call number, and barcode of item that has been booked**
- **The booking note, if one exists for the booking, or the first note from the Item record otherwise**
- **The name of the patron who booked the item**
- **The "Booked From" and "Booked To" dates and times**
- **Whether the item will be picked up by the patron, delivered by the library/returned by the patron, or delivered/picked up by the library**
- **Where the item is to be delivered, if the library is responsible for delivery and/or pick up**

Millennium prints three types of booking slips:

- **Patron Pickup Slips - for items the patron is responsible for picking up and returning. These alert the Library to prepare the items.**
- **Library Delivery Slips - for items the Library is responsible for delivering (whether or not the Library is also responsible for pickup).**
- **Library Pickup Slips - for items the Library is responsible for picking up.**

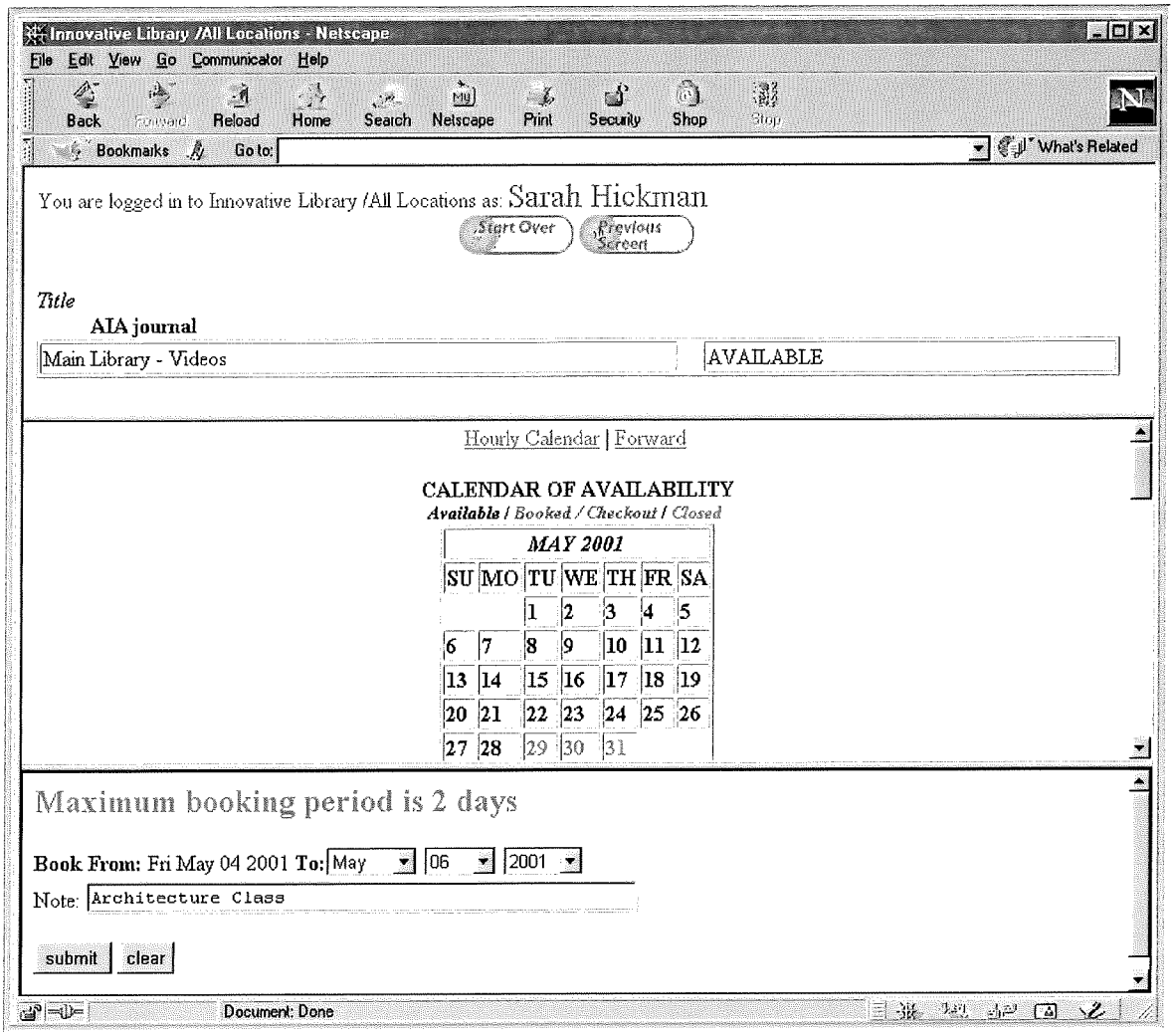
Comprehensive Statistics

Millennium automatically produces a detailed analysis of booking activity. The operator can select the following parameters for the report:

- **The time period to be covered – yesterday, year-to-date, etc.**
- **The location(s) to be covered – all or selected locations**
- **The type of analysis – by patron codes, item codes, call number, statistical categories, etc.**

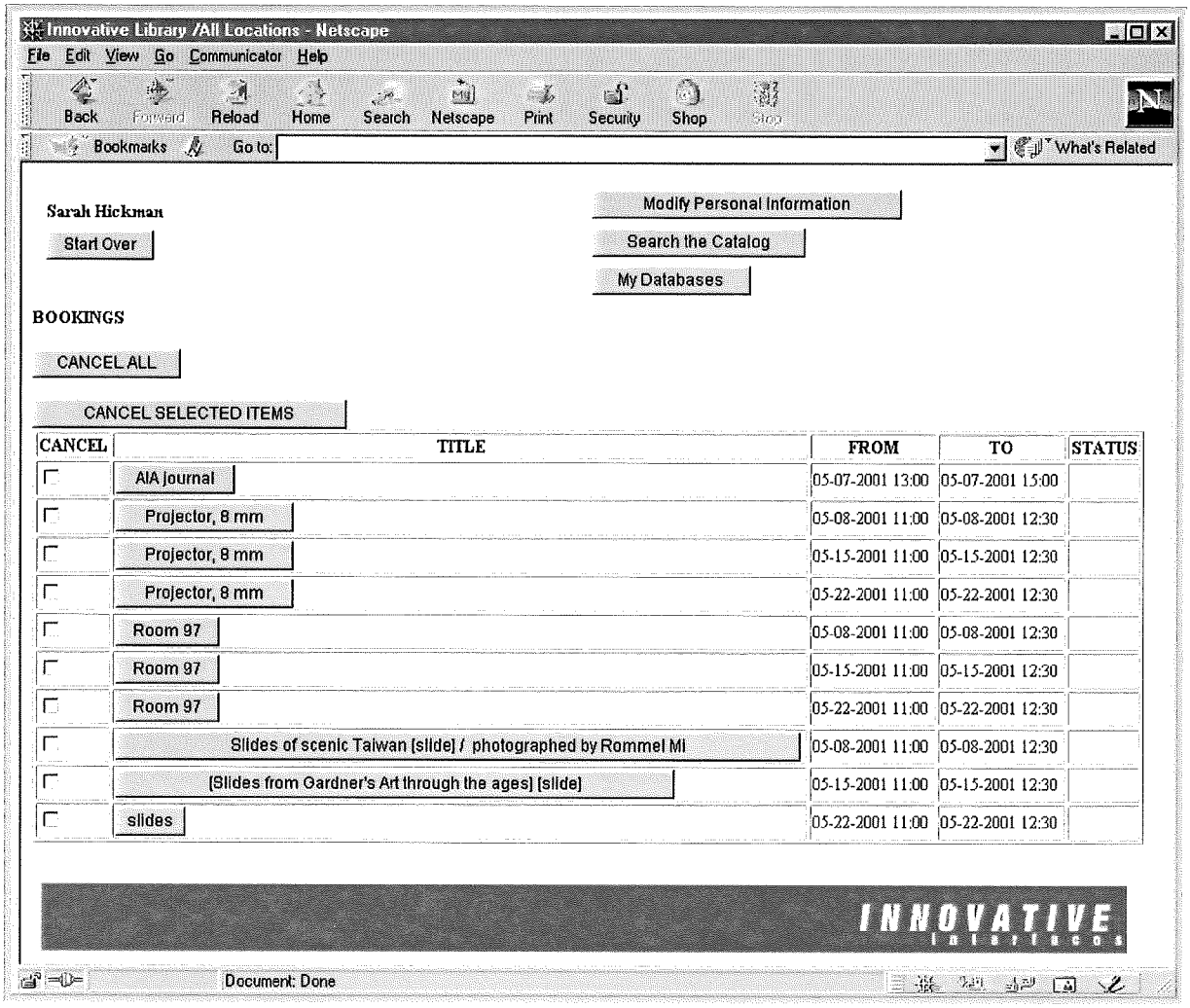
Complete Integration with the Web OPAC

Using their personalized My Millennium logins, patrons can place, view, and cancel their own bookings via the Millennium Web OPAC. The power of web-based computing allows patrons to seamlessly link between the online catalog and their patron records to locate and book items. When placing a booking, patrons can view the item's availability in either a daily or an hourly graphical calendar display.


Innovative Library /All Locations - Netscape
File Edit View Go Communicator Help
Back Forward Reload Home Search Netscape Print Security Shop Stop
Bookmarks Go to: What's Related
You are logged in to Innovative Library /All Locations as: Sarah Hickman
Start Over
Previous Screen
Title
AIA journal
Main Library - Videos
AVAILABLE
Hourly Calendar | Forward
CALENDAR OF AVAILABILITY
Available / Booked / Checkout / Closed
MAY 2001
SU MO TU WE TH FR SA
1 2 3 4 5
6 7 8 9 10 11 12
13 14 15 16 17 18 19
20 21 22 23 24 25 26
27 28 29 30 31
Maximum booking period is 2 days
Book From: Fri May 04 2001 To: May 06 2001
Note: Architecture Class
submit clear
Document: Done

Book this Item Screen for My Millennium Patron within Millennium Web OPAC

The My Millennium patron record screen displays existing bookings by title and date, allowing patrons to cancel all or selected bookings, if necessary.

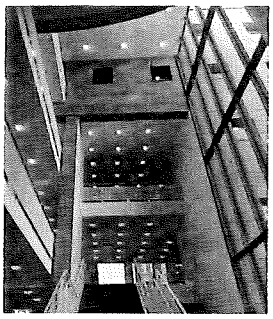

Innovative Library /All Locations - Netscape
File Edit View Go Communicator Help
Back Forward Reload Home Search Netscape Print Security Shop Stop
Bookmarks Go to: What's Related
Sarah Hickman
Start Over
Modify Personal Information
Search the Catalog
My Databases
BOOKINGS
CANCEL ALL
CANCEL SELECTED ITEMS
CANCEL TITLE FROM TO STATUS
AIA journal 05-07-2001 13:00 05-07-2001 15:00
Projector, 8 mm 05-08-2001 11:00 05-08-2001 12:30
Projector, 8 mm 05-15-2001 11:00 05-15-2001 12:30
Projector, 8 mm 05-22-2001 11:00 05-22-2001 12:30
Room 97 05-08-2001 11:00 05-08-2001 12:30
Room 97 05-15-2001 11:00 05-15-2001 12:30
Room 97 05-22-2001 11:00 05-22-2001 12:30
Slides of scenic Taiwan [slide] / photographed by Rommel Mi 05-08-2001 11:00 05-08-2001 12:30
[Slides from Gardner's Art through the ages] [slide] 05-15-2001 11:00 05-15-2001 12:30
slides 05-22-2001 11:00 05-22-2001 12:30
INNOVATIVE
Document: Done

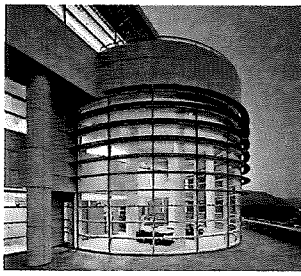
Current Bookings on My Millennium Patron Record within Millennium Web OPAC

1. **A**
2. **A**
3. **A**
4. **A**
5. **A**
6. **A**
7. **A**
8. **A**

IV. Enhanced Searching and Patron Tools

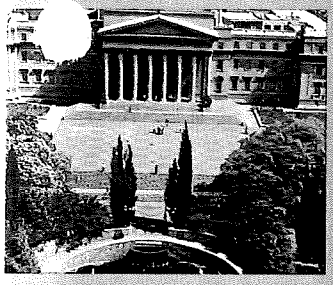
1. A
2. A
3. A
4. A
5. A
6. A
7. A
8. A
9. A
10. A

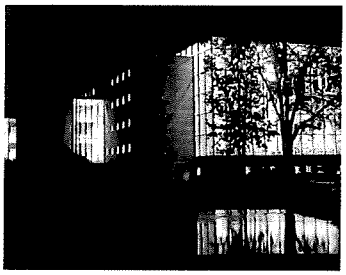


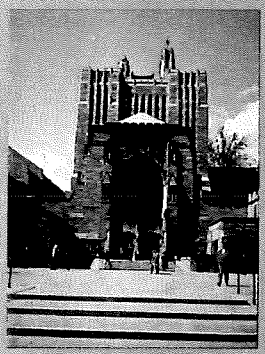


MILLENNIUM SYSTEM DESCRIPTION

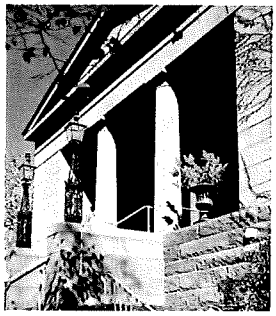
millennium







INNOVATIVE
interfaces



MILLENNIUM
SYSTEM DESCRIPTION

This Millennium System Description is a comprehensive list of Innovative's Millennium products. The information contained in this document is current as of May 15, 1999. However, it is subject to change at any time.

Please contact Innovative's Sales Department for further information about any of the products covered in this document.

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info@iii.com (email)

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SOFTWARE PRODUCTS

Millennium Base System: Cataloging, OPAC, Circulation, Inventory Control, Report Writer, Management Reports 1000

Network-based Web computing software that includes:

Millennium Database Management System. This includes:

- Both Web and Z39.50 servers, which operate on the same machine as the database.
- Support for the full MARC format including the complete ALA character set, including non-Roman characters.
- Ability to input and output characters in various coding systems, including Unicode.
- Record size of up to 100,000 characters; field size of up to 10,000 characters.
- Graphical Cataloging client software runs under Windows 95/98/NT®.
- Ability to define up to 100 sets of defaults for Bibliographic, Authority, Item, and Patron records, each of which specifies:
  - Default values for fixed-length fields (e.g., location).
  - The Variable-length and fixed-length fields for which the system will prompt when keying new records (also referred to as "templates").
  - Graphical cataloging client (runs under Windows 95/98/NT).
- Ability to define macros; the system will substitute full phrases of text for two-letter macro codes keyed by the user.
- Ability to have multiple records on the screen at the same time.
- Ability to clone a record.
- Ability to check the validity of MARC coding.
- Ability to display the MARC coding manual (value tags, indicators, subfields).
- Ability to check the validity of coded fields (e.g., language, country) as they are keyed and display lists of valid codes.
- Ability to do standard word processing operations such as delete, insert, typeover, block, cut and paste, word wrap, etc.
- Ability to copy any field (e.g., author, subject) from one record to another.
- Ability to copy records from any other system that has a Z39.50 server.
- Ability to display the record as it will look in the public catalog.
- Ability to print spine and pocket labels for items.
- Full indexing via phrase indexes (e.g., author, title, subject), number indexes (e.g., ISBN, ISSN, bibliographic utility number, call number), and advanced keyword indexes with relevance ranking.
- Globally update headings in bibliographic records based on changes in Authority records.
- Globally update headings and subdivisions even when no Authority records.

- Globally update fixed-length codes (e.g., location) in a selected subset of the database.

Millennium OPAC

- Unlimited number of Web OPAC users.
- Z39.50 client to access other systems.
- Items at the location where the OPAC user is display first. Other items can be automatically kept in alphabetical order (by location).
- Table of contents display and indexing based on coded 970 fields.

Millennium Report Writer

- Select subsets of the database using Boolean logic and save these subsets as lists of records (review files). The Boolean logic can be applied to data in Bibliographic, Authority, and Borrower records or in attached records such as Order, Item and Holdings records, etc. These Review Files may be sorted by any field and may be printed, displayed, listed, or used as a source file in the **Update Records** functions.
- Perform a statistical analysis of the database (or any selected subset of the database) based on coded data elements, dates, or call number. Multiple statistical tables are available for producing separate statistical reports on call numbers in different indexes (e.g., LC index or SuDocs index) or on different ranges of call numbers in the same index. For each table defined, circulation activity and statistical reports on record ranges or Boolean review files will be reported separately.
- Output the entire database or any selected subset in the MARC communications format.

Millennium Systems Administration

- Maintain various tables of valid codes used by the system, e.g., language, country, location.
- Control access by individual staff members or groups of staff members to certain system functions (such as keying new records, updating records, selecting a subset of the database, etc.). Ability to create or delete individual types of records may be specified independent of the ability to update records of that type. Each staff member (or group of staff members) can have their own password, which they set themselves; these passwords prevent unauthorized persons from gaining access to these functions.
- Do incremental and full backups of the database to tape while the system is in regular use. Routines are provided to verify backup tapes. Backup may be unattended.
- Allow or deny access to the library's system based on IP address of incoming connection.
- Set and maintain Login names and passwords; ability to determine the sets of options which will be offered to particular logged-in users.

Millennium Circulation (Includes the following capabilities):

- Full Item record support. Each record contains:
  - Variable-length, repeatable data, such as barcode number (indexed), call number (indexed), various types of notes.
  - Fixed-length data for:
    - Circulation control (e.g., ITEM TYPE, of which there may be up to 256).
    - Statistical categorization (e.g., ICODE1).
- Any one Bibliographic record may have up to 3,000 individual item records (volumes/copies) attached to it and any one Item record may be attached to up to 500 Bibliographic records (to accommodate "bound withs" or "analytics").
- Full Patron (borrower) record support. The library determines the variable-length data to include in Patron records; e.g., address, telephone number, notes, ID#, barcode number, etc. All variable fields are repeatable. Name, barcode number, and ID# are indexed. In addition, there are library-specified coded fields, some of which are used for circulation control purposes (e.g., PATRON TYPE, of which there may be up to 256), and statistical categorization (e.g., PCODE1).
  - Patron records for different members of a family may be linked together.
  - Patron records can be loaded (and updated) from external sources that can provide them in machine-readable form in a format specified by Innovative
  - Key and update Patron (borrower) records. The library determines the variable-length data to include in Patron records (except for the name which is required), e.g., address, telephone number, notes, ID #, barcode number, etc. Name, barcode number, and ID# are indexed. Some fields hold fixed-length data which is used for circulation control purposes (e.g., PATRON TYPE, of which there may be up to 256) and statistical categorization (e.g., PCODE1).
- Perform the following circulation operations, using a Java client:
  - Check the Patron record to determine if the patron is in good standing. If not, block the patron from checking out, renewing, or placing holds, with an explanatory message displayed. Blocks are based on:
    - Amount of money owed.
    - Length of time the item(s) is (are) overdue.
    - Demerit points not worked off (if demerit points are used by the library).
    - Number of items checked out (total and two sub-types).
    - Expiration date of library privileges.
    - Library-specified reason.

    Authorized staff may override blocks; all overrides are logged for review by supervisors. The library can specify for each patron type at what level a block will be invoked (e.g., how much owed, how long overdue).
  - Check out items – system provides messages and warnings for staff; e.g., if the patron has overdue books, the item is non-circulating, etc. In addition, while in the basic check-out function:

  - ➢ Staff can display lists of the patron's checked-out items, overdue items, fines, and reservations (holds), as well as items booked for the user at a specific time in the future, and items requested on inter-library loan.
  - ➢ Staff can perform many other circulation functions, such as renew items, collect fines, place holds, etc.
  - ➢ Staff can view and edit the information in the Patron record.
- Compute due dates/times (to correct day, hour, or minute) based on three factors: patron type, item type, and owning location. In computing the due date, Millennium takes into account the expiration date of the patron's registration, the library calendar, and whether there are existing holds on the item (placed by other patrons). Millennium can automatically set the due date to a specific date (e.g., end of the month); it also accepts operator-specified due dates.
- Renew single items or groups of items for a patron using a single command.
- Check in items, including :
  - ➢ System provides messages and warnings for staff, e.g., if the item has a hold on it, is overdue, or consists of several parts, etc.
  - ➢ System automatically calculates overdue fines and adds them to the Patron record.
  - ➢ System automatically computes rental charges for rental items.
  - ➢ Staff person can collect (or waive) overdue fines.
  - ➢ System produces notices when items with holds on them are returned.
  - ➢ System produces in-transit slips for returning an item to its home location (when applicable).
- Place a hold on a specific copy, first copy available system-wide, or first copy available at a location; specify not-wanted-after date and pickup location.
- Transfer a hold between items attached to the same Bibliographic record.
- Print statements of checked-out items for sending to patrons.
- Recall an item (as part of placing a hold).
- Manage and re-sequence hold queues.
- Print overdue notices (up to five per loan) for sending to patrons.
- Compute and print bills for sending to patrons.
- Manually create miscellaneous charges.
- Print statements of outstanding fines and bills for sending to patrons.
- Collect money owed and print receipts.
- Calculate demerit points (if demerit points are used by the library).
- Handle "claims returned" & "lost book" transactions.
- Examine amounts paid by patrons during the previous three months; system provides auditing controls and reports by day, collector, and payment type.
- Create a record "on-the-fly" to check out library materials which are not in the system database.
- Record three different types of in-house use of materials.
- Produce comparative circulation statistics by a variety of data elements for any two groups of months.
- Accumulate and display circulation totals by copy for year-to-date and for previous year.

- Produce statistical reports of checkouts by hour for each day of the month, by terminal or terminal group.
- Maintain circulation parameters:
  - Library calendar.
  - Block thresholds by patron type.
  - Loan, renew, fine, notice, recall, etc. policies for each patron type, item type, and location.
  - Texts of notices, frequency of notices, format of notices, etc.
  - Message to display in OPAC for items recently returned or recently cataloged.

Millennium Inventory Control

This provides the ability to print the shelf list for any location, showing the circulation status for each item. It also can be used to read in a list of barcodes (e.g., from a portable scanner used to read books on the shelves) and to produce a report that compares this information to the shelf list and circulation files. The report includes items shelved out of order, items missing from the shelves but not checked out, items checked out but on the shelves, etc. Inventory dates are automatically written into the inventoried item records.

Lists of barcodes scanned in with the portable barcode reader may be transferred to an Millennium review file. This allows not only lists to be produced based on the scanned list, and also allows the records to be quickly and easily updated in the **Update Records** function.

Reserve Book Room or Homebound Patron Services

The base Millennium system includes either the Reserve Book Room or the Homebound Module. If both are desired, they may be acquired together by purchasing Product 2407.

♦ **Reserve Book Room Module provides:**

- Ability to key and update Course records. Each Course record contains fields to hold variable-length, repeatable data, such as course name(s), instructor name(s), and notes associated with the course. In addition, beginning and ending dates and the reserve location can be specified. Items are placed on reserve by associating them with one or more Course records.
- Additions to the database of Bibliographic and Item records for personal copies, photocopies, etc. These records can be accessed from the OPAC by author, title, etc. or, at the library's discretion, they can be suppressed from display in the OPAC.
- Placement of any item in the database on reserve by linking it to one or more Course records; this is done by scanning in the item's barcode or by keying an indexed field from the Item or Bibliographic record, e.g., title. When an item is placed on reserve, its item type and location (and thus its loan period) can be changed for the duration of the reserve (the originals are saved for automatic restoring when the item is taken off reserve). Also,

when an item is placed on reserve, additional access points are made available in the OPAC so that the Item record can be retrieved by course name(s) and instructor(s). An item may be on reserve for as many courses as desired. Any one course may have up to 350 items on reserve.

- Ability to have items on reserve for a course may be active until a certain date, or inactive until a certain date. (Inactive items are not shown in public displays of a course reserve list.) Lists of items may be produced based on date to become active or inactive.
- Reports for each course, listing all items on reserve and the number of times each was circulated while on reserve.
- Removal of items from reserve for a course. When this is done, Millennium automatically restores the item's original item type and location. Items can be removed from a course singly, by wanding the barcode, or in a batch by specifying the line numbers of the items to remove.
- Multiple reserve rooms or locations.
- Intermingling of reserve books with regular books in the check-out and check-in processes.

♦ **Homebound Module provides:**

- Ability to track and display for individual patrons a list of items of a particular type that has been checked out and returned to them.
- Ability to print a "Rating Sheet" for items that are being checked our to each homebound patron and enter the rating into that patron's record when the item is returned.
- Ability to print reports and lists of items that have been rated by patrons at a certain level.

License for (x) Simultaneous Staff Users 1001

Millennium offers the option to have a license for an unlimited number of Web OPAC users. Here you specify the maximum number of staff members who will be accessing the system's staff functions (circulation, acquisitions, etc.) *at the same time.*

Millennium Acquisitions 1100

Provides the following capabilities:

♦ Ability to attach Order records to existing Bibliographic records. A separate Order record is created each time a title is ordered. Each Order record can accommodate multiple copies, funds, and locations. Up to 100 Order records may be attached to any one Bibliographic record. Order records contain fields to hold:

- Variable-length, repeatable data, such as notes, vendor correspondence, etc., as well as library-defined fields.

- Fixed-length data, such as order date, vendor, fund, price, order type.

- Ability to update Order records; for example, to record the status of the order, claimed, canceled, vendor correspondence, etc.
- Ability to archive a subset of the order file (e.g., all filled orders) by writing the data to tape in the MARC communications format and to load that data back into the system for viewing.
- Ability to store and maintain records for up to 750 different vendors (expandable to 3600 vendors).
- Ability to search vendor file, by any text which appears in the vendor's name or address.
- Ability to compute vendor performance statistics.
- Ability to store and maintain up to 750 different funds (expandable to 1500 funds).
- Ability to prepare regular fund accounting reports.
- Ability to print and display "Fund Activity Reports" that list each transaction recorded against each fund.
- Have the system maintain encumbrances in the fund files, which represent outstanding orders.
- Enter invoices, appropriations and transfers; the system maintains a record of appropriations, encumbrances, and balances for each fund in the fund files. The system provides financial registers and auditing controls.
- Receipt of invoices electronically from serials vendors. Serials vendors who can provide electronic invoices include EBSCO, Faxon, Blackwell's Periodicals, Harrasowitz, Hein, Majors, McGregor, Readmore, Rothman, RoweCom, Swets & Zeitlinger, and others.
- Globally re-assign Order records to different funds and to perform fiscal closing procedures.
- Store up to 18,000 paid invoices linked to the vendors in the vendor file.
- Store up to fifty payments with each Order record.
- Provide an analysis of expenditures by call number and by other data in the Order record, including inflation and growth projections.
- Ability to print purchase orders, or to send them electronically over the Internet.
- Ability to identify overdue orders and cancellation forms for the library to mail to the vendors.
- Allow library staff to enter foreign currencies in estimated prices for items being ordered and on invoices for items being paid. Millennium automatically converts these values to the local currency using a library-maintained foreign currency conversion rate table. Also provides the ability to have Millennium periodically adjust these estimated prices (in the local currency) to reflect changes in the foreign currency conversion rates; provides reports on these adjustments.

Millennium Serials Control 1200

Provides the following capabilities:

- Attach one or more Checkin or Serials holdings records to existing Bibliographic records. Each active Checkin record has a Checkin card embedded in it. These cards contain operator-entered and system-computed data about past and future issues of the serials. Checkin card data can include up to six levels of chronology and three levels of enumeration specified by the MARC format. The system-computed data can include volume and issue number, cover date, and expected arrival date. For issues that have already been received by the library, the data consists of the arrival date, the number of copies received, notes, etc. In addition, Checkin records (both active and inactive) contain summary holdings statements, binding parameters and other data, including library-defined variable-length fields.
- Ability to update Checkin records as each individual issue arrives, as well as perform other updates as needed.
- Ability to claim serial issues. The system scans the file of Checkin cards to find issues that have not arrived when expected. The operator can review the records for those issues and, if desired, have the system generate a claim form for each issue that has not arrived. Includes the ability to send claims for serials issues via electronic mail (email) to publishers/vendors who are capable of receiving them in this way (the Millennium system and the publisher/vendor must both be on the Internet). The X12 format is used. Some vendors who can receive claims in this format include EBSCO, Faxon, Harrasowitz, Readmore, B.H. Blackwell, and Dawson.
- Ability to print routing slips while checking in issues. A file is provided to maintain names and addresses of people to whom journal issues are routed and to include these people on the routing list for particular copies of journals.
- Ability to handle binding of serial issues; i.e., to search the file of Checkin cards to find cases where enough issues to be bound have arrived in the library. The system will print slips for each set of such issues to facilitate retrieving the issues from the shelves. Before printing, these slips may be sorted by title or call number or other fields the library specifies, as an aid to rapid retrieval.

  The Checkin receipt record for titles which are being sent to the bindery, indicating which issues are being sent to the bindery, and on which day.
  Binding slips, containing binding instructions, for each title being sent to the bindery.
  The Checkin receipt record for issues which have been received back from the bindery.
  Millennium will automatically update the "summary holdings" (or "bound holdings" field).
  Item records for individual issues may be consolidated into a single Item record for the bound volume while checking in bound volumes back from the bindery. Statistics for consolidated issues are automatically accumulated and stored in the newly created Item record for the bound volume.

Includes the ability to send claims for serials issues via electronic mail (email) to publishers/vendors who are capable of receiving them in this way (the Millennium system and the publisher/vendor must both be on the Internet). The X12 format is used. Some vendors who can receive claims in this format include EBSCO, Faxon, Harrasowitz, Readmore, B.H. Blackwell, and Dawson.

Millennium Inter-Library Loan (Borrowing) Module 1300

This product provides the library with the capability to keep track of requests by patrons for items to be supplied by other institutions. The capabilities of this product are:

- Take requests for books or journal articles which the library does not own; patrons or staff can enter these requests into the system in:
  - The OPAC (patron keys request in **Get on Inter-Library Loan** function).
  - An Millennium Journal Citation Database (patron uses **Request This Item** function.).
  - Another database being searched with Millennium's Z39.50 client. (patron uses **Request This Item** function).
- Search the Millennium database automatically to verify that the requested item is not held by the library.
- Search Z39.50 databases such as MELVYL and OCLC to verify and retrieve accurate bibliographic and holdings data.
- Patrons are able to verify that an inter-library loan request has been made by viewing their Patron record.
- Print an inter-library loan (ILL) request or:
  - Email ILL request for the item to another library or institution, using a list of inter-library loan suppliers contained in Millennium's "Patron" file.
  - Send ILL request to ISO 10160/161-compliant ILL systems (e.g., OCLC).
- Notify the patron when the item arrives.
- Check the item out to the patron when it is picked up.
- Send special notices to the patron if the item is not returned when due.
- Check the item back in when the patron returns it; this automatically prints an "in transit" slip to return the item to the lending library.
- Provide statistics on the number of items borrowed from each inter-library loan supplier and how long it took from the time a request was submitted until the item was received. Statistics are also provided by type of patron that has made the inter-library loan request.

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SERVICES

Software Installation 2100

Software may be installed on a machine made by Sun, HP, Compaq (Digital) Alpha, or IBM, assuming it is running an Innovative-approved version of UNIX. Software installation is done by Innovative technicians over the Internet. As part of installation, Innovative's technicians partition the disk and set various operating system parameters to optimize system performance. They also initialize various files used by the system and install code conversion tables to support devices that can input and display characters in the following code sets: VT100 (ASCII), VT220 (ISO Latin-1; i.e., letters with diacritics used in Western Europe), T160E (ALA character set) Windows 1252 (ISO Latin-1; i.e., letters with diacritics used in Western Europe), HTTP (ISO Latin-1; i.e., letters with diacritics used in Western Europe), and Unicode (UTF-8; characters in most of the world's languages).

Profiling/Database Loading 2101

- Provides a profile for a table, developed in consultation with the library, which describes how to load and index MARC Bibliographic records provided by the library. Item information is to be embedded in those records. All records are to come from one source.
- Library can have up to 25 indexes (e.g., author, title, subject, keyword, record number, ISBN, patron name, item barcode, patron barcode, old order number, etc.).
- Library can specify fields and subfields to place in each index.
- When loading records, library specifies fields to load and Millennium field label to be associated with each field.
- When loading records, library can specify changes in certain codes; in particular, location codes.
- All characters in the ALA (USMARC) character set as implemented by LC, OCLC, and RLIN are loaded, including (if the library specifies) characters in parallel 880 fields (Chinese, Japanese, Korean, Cyrillic, Hebrew, Arabic, and Greek).
- Includes the 20,000 record "TestPAC" load, the "full load," and one "gap load."
- Loading tables are also provided for authority and patron (borrower) records.
- Programs to load outstanding checkouts, holds, and fines are also provided.
- All data provided must be in the format Innovative specifies.

Additional Load Table 2102

If the records come from multiple sources, or if there will be multiple loads, then additional load tables need to be acquired.

Maintenance 2103

Innovative's maintenance service operates 24 hours a day, seven days a week. Innovative can be contacted to request service via telephone (an 800 number is provided in the U.S. and Canada), email, its Web site, or fax. Service provided includes answering questions about system operation, diagnosing problems, installing any needed bug fixes, and providing enhancements to system software via (annual) new releases. Also included is performing any necessary restorations of data (from backup tapes prepared by library staff using Innovative backup programs as specified by Innovative). Maintenance service for the first year (from date of initial software installation) is included with the system in North America. This product is for maintenance after the first year.

Training 2110

A specified number of on-site training days is provided to the library. Training is to instruct the trainers who are on the library's staff, who will then train the rest of the library staff. A fair amount of training time is spent discussing system options and how to set up system parameters to meet the library needs. The rest of training time is "hands-on". Each training session is limited to six to eight people.

Additional Training 2111

A specified number of additional training days may be purchased. Should be acquired if the library purchases additional modules such as Materials Booking, Inter-Library Loan, etc.

Headquarter Training 2112

A specified number of additional training days may be purchased. Should be acquired if the library purchases additional modules such as Materials Booking, Inter-Library Loan, etc. Held at Innovative headquarters.

OPTIONS

OPAC Partners 2302

This product allows a user who has done a search in the local catalog to have Millennium automatically perform that same search on another Millennium database. The other database can be located on the same Millennium system, Innovative's INN-View database, or on another Millennium system which has acquired Partners software and allows such searches. The users do not have to re-key the search; they merely choose the other database from an Millennium menu of up to fifteen available databases.

KidsOnline 2303

This product is a Web OPAC interface designed for use by children. With the KidsOnline interface, libraries may offer patrons the ability to search the Millennium database by selecting pictures from a hierarchy of increasingly specific menus. Libraries may also elect to offer standard text entry boxes on these menus so that more experienced patrons can directly type a search.

KidsOnline comes equipped with a standard set of menus and pictures (over 500 images in GIF format). If product 2304 is acquired, KidsOnline searches can be forced and/or locked into searching the juvenile collections with an option to expand the search into other scopes or the entire library collection.

KidsOnline also offers the option to browse the collection by a specific letter of the alphabet. Libraries can also create Featured Lists of Titles and provide access to them through the KIDSOPTIONS file, and comes with a suite of HELP Screens that explain common terms and functions to users; they also provide a self-guided tour of the KidsOnline features.

All of the KidsOnline screens are governed by a KIDSOPTIONS file that controls everything from which index and phrase to search, to the images, fonts, colors and table columns on every screen. This easy-to-use hierarchical file offers complete Web customizability without all the burdens of learning and updating HTML. Moreover, the KidsOnline interface is similar to the overall look and function of the Web OPAC, making it easy to transition from one to the other.

NOTES: The Web browser should support Tables, Frames, and Cascading Style Sheets. Innovative recommends Netscape Navigator 4.x or Microsoft Internet Explorer 4.x. Innovative does not guarantee that other browsers will support all the features of the Millennium KidsOnline. Innovative does not provide training or assistance in the HTML markup language or use of Web browsers.

Scoping: Catalog Subsets by Location and/or Material Type 2304

This product allows the library to define various subsets of the catalog, using locations and/or material types to define the subsets. The base offering allows the library to define up to four subsets. Additional groups of five subsets each may also be acquired.

Web Access Management 2305

Management of Access to External Web resources allows the library to specify up to 50 different remote Web servers to which controlled access may be offered to patrons via the Millennium system, whether those patrons are in the library or accessing the Millennium remotely via the Internet. Control is managed by forwarding access to those remote servers through the Millennium system and using the Millennium system as a proxy server for the user's client browser. With the Web Access Management service, OPAC users access Web pages from the remote servers just as though they were pages on the Millennium Web Server itself, allowing OPAC users access to resources which are usually restricted only to specific addresses or networks.

The library can restrict access to a remote server based on the location (IP address) of the OPAC user's browser using the service level facility; the library can also specify that the Web Server require the OPAC user be a registered borrower of a certain type before allowing access to a remote server; or both facilities may be combined so that OPAC users in the library are granted access without verification, but the same OPAC users accessing Millennium via the Internet would be required to identify themselves by name and library ID.

Features include:

- Controlled access to each remote Web server by Patron Verification or Service Level.
- Statistics maintenance for number of connections by server and patron type.
- Forward Service Web Report for viewing Management of Access to External Web Resources statistics.

Image Linking 2306

Image Linking is used with the Web OPAC to enhance access to digital image collections located on other Web servers, beyond the basic capability of a selectable URL link. Image Linking offers a Java-based viewing tool and sophisticated links between Millennium Bibliographic records and image collection on external Web servers. This product offers your patrons thumbnail previewing, local image manipulation including scaling and rotation, printing, and file saving to their local PC resources. Patrons may search a collection of photographs, slides, documents, or other images through the Web OPAC, and thumbnail previews of each

image display with the bibliographic references. When patrons access the digital material by clicking on the thumbnail image, the Web OPAC provides a Java viewer that offers the patron enhanced viewing options compared to the basic browser display of the same content. Furthermore, the sophisticated links allow the library to specify, per record, whether the viewer should enable other capabilities, such as thumbnail images of a video or a CD cover that link directly to streaming video or audio. Thus, the Java viewer and Web OPAC search and preview capabilities allow the library to add significant value to patron access to external image collections, even though the images are located on an independent, external Web browser.

Local Image Linking 2307

Local Image Support adds to the Enhanced Image Linking product by allowing the digital images themselves to be created and stored on the Millennium server rather than on a separate Web server. Library staff can locally scan images using Innovative's ER1 Scanning Workstation, or import them into Millennium from GIF, TIFF, or JPEG image files through the included Scanning Workstation software. The digital images are stored as LZW compressed TIFF files. The number of images that may be stored per 4GB disk drive varies depending on the size, resolution, and number of colors in the images. For example, over 5,000 8-½" x 11" black and white, 150 dots per inch images of text pages are commonly stored on one 4GB disk drive, while only 700 images could be stored if the same images were 8-1/2" X 11" color photographs scanned at 300 dots per inch. The scanned or imported images are completely integrated into the Millennium system, eliminating the need for the expense, maintenance, and backup of a separate Web server.

Interface to Third Party Self Checkout System 2400

This product provides an interface for connecting a specialized Self Checkout Terminal such as 3M's *SelfCheck* (using the "Standard Interface Protocol – SIP – 1.0") to your Millennium system. The connection may be made either via the library's Ethernet network or by utilizing an available RS232 port. The interface supports the standard capabilities of the Self Checkout terminal, including patron circulation status verification, item checkout using standard loan rules and due date calculation. Circulation activities that would require an override if performed in the normal Circulation system are blocked, and a message directs the patron to a librarian. Patron PIN verification is supported. If the Self Checkout terminal performs magnetic desensitization of materials, the interface may be configured so that particular material type values in the Item record indicate magnetic media that should not be desensitized. Circulation statistics are gathered for Self Checkout circulation activity just as for any other circulation location. Each separate Self Checkout terminal unit connected to Millennium requires a separate interface. Use of the interface does not require an available Millennium Staff User License.

Electronic Output to Bursar's Office 2401

This product outputs financial charges assessed against patrons for use by a campus bursar's office.

Electronic Input from Bursar's Office 2402

This product inputs financial charges paid by patrons at the bursar's office.

Electronic Course Reserves 2403

This product allows patrons at character-based terminals to print previously scanned images of reserve articles on networked laser printers, and for patrons using the Millennium Web Server to view those images. Each stored article includes elements to specify royalties or other charges which should be applied for printing or viewing the article. The patron is advised of any applicable charges and asked to confirm, before any chargeable action is taken. Charges may be added automatically to the Patron record, appearing as a manual charge, or printed on a cover sheet to allow collection at the point of printing. The number of pages to print or view always displays, allowing patrons using debit card printers to determine the debit amount before printing. Verification is performed against the Millennium patron database. Detailed reports on Electronic Reserve materials use are provided and include charges applied. Articles are scanned by library staff at one or more ER1 Scanning Workstations which allow easy scanning and attachment of articles to existing Bibliographic records, or creation of a new Bibliographic record at the same time the article is scanned.

Notes: *Requires at least 4 GB disk drive for locally stored imaged. Also requires on-site training. RAID sites add either a new RAID set or install disk outside RAID.*
Scanning of documents requires ER1 hardware or equivalent. Printing requires ER2 hardware or equivalent.

Materials Booking 2404

This product provides the following capabilities:

- Patron can reserve or book an item for a specified time in the future. Any item in the database, which that patron can check out, can be booked (e.g., a film, video, book, journal issue, item on reserve for a course, etc.). When an item is booked, Millennium performs all the usual validity checks on the patron (i.e., checks for circulation blocks). At the time the booking is placed, the system makes sure that the item is available for the day and time

requested. For items linked to Course Reserve records, patrons may book the items themselves; otherwise, library staff may enter the bookings.

- Book multiple items easily for a particular patron at the same time; ability to book the same item easily for the same time period each day or week for a particular patron.
- Ability to add Item records to the database for such things as classrooms, projectors, etc., so that they can also be booked or scheduled.
- Display or print a calendar of bookings for an item. The calendar can be either daily or hourly (the days or hours for which the item is booked are highlighted). Alternately, the bookings for an item can be displayed or printed as a list, showing what is booked, for whom, etc.
- Generate delivery and pickup slips for booked items.
- Name a group of items which have been booked together for a single event, allowing:
  - The booking to be retrieved by event name.
  - Items easily to be added or deleted from the event.
  - Updating of all the items booked for the event with one command.
- Statistics on the bookings placed.

Telephone Notification of Overdue/Available Items 2405

With this product, Millennium can send selected notices by telephone. Notices not sent by telephone can be printed or e-mailed.

Millennium transfers the complete file of notices which are to be sent via telephone to a PC when the operator issues a command *on the PC* to retrieve the file. The PC then calls each person and delivers a spoken message.

The PC will dial each person who is listed in the file in turn; if there is no answer, it will try the number again. The library will be able to control the time of day at which the calls are made and how many attempts are to be made.

The PC doing the telephoning uses a recorded voice, not a synthesized voice. Thus, a library staff member must record the library's message(s), using a microphone provided with the PC.

The PC can be equipped to make calls on up to four different phone lines. It can make approximately 60 calls per hour, per line. Thus if the library has 300 overdue notices a day to send via telephone, and it has a PC with one line, it will take four to five hours for the PC to go through the list once.

At the end of the day, the library will be able to transfer back to Millennium a file showing the calls which have been successfully completed and those which have not. Millennium will then *print* regular circulation notices for calls which were not completed successfully. Millennium will also update its records to indicate that the notices were sent (both the ones that were printed,

and the ones that were sent via telephone). Millennium will not transfer additional files of telephone notices to the PC until the results of the first file have been returned.

Notes: *This product is available only as an integrated hardware/software package, in a PC sourced and set up by Innovative.*

Telephone Renewal 2406

Provides the ability for patrons to renew their own materials by using a touch-tone telephone. A stand-alone Windows NT PC with industry-standard Dialogic Computer Telephony, the Millennium database server answers incoming telephone calls from library patrons. Patrons are directed through a simple, friendly renewal process which interacts with the Millennium Circulation module in real time. Patron are first prompted for their barcode number and then provided a list of renewable materials with their due dates to be selectively renewed. All materials are identified only by a required portion of the item barcode, not the barcode in its entirety. All of the spoken messages are designed to guide the patron speedily through the renewal process and are recorded by the library using local voice talent with a simple recording facility which presents the recommended message and valid selections.

Reserve Book Room/Homebound Module 2407

Libraries that want both of these products acquire this option.

Patron API (URL) 2408

The Millennium URL Patron API allows the library to offer complete patron information to an external system, for such uses as an access gate or "one card" system or to provide data for patron verification by another database. The API is straightforward and may be tested using a standard Web browser, streamlining external application development. In response to an HTTP request on an access-controlled port for a URL specifying the patron, the URL Patron API provides structured HTML output of all of the data in the patron record for external processing. Clear diagnostic messages (including machine-parsable codes) are returned for error conditions such as an invalid patron identifier.

Features include:

- All data elements in the Millennium Patron record
- Simple HTML forms-based interface
- Protection of patron information by IP access control

Patron Debit System 2409

Tracks a patron's pre-payment of funds into their own individual debit account to be applied against future use of various system resources, such copyright or printing charges for printing an Electronic Reserves document. Includes an audit trail for generating use and payment statistics. Balances are recorded as a special element in each patron record. A patron's account may hold a maximum balance of $9,999.99. Millennium will block the use of a service by a patron whose account balance is not sufficient to cover anticipated costs. The Patron Debit System is based on debit against funds on deposit and does not include a facility for billing or patron statements.

Extended Approval Plan Interface 2600

This product provides the ability to receive MARC records, with invoice data, either for books that a vendor is about to ship the library on an approval plan or for books the library has ordered from a vendor that is able to supply MARC bibliographic data with the library's Millennium order number in an appropriate 9xx field. Specifically, this means that bibliographic, order, and invoice data may be accepted from a vendor where the order and/or the Bibliographic record may or may not already be in Millennium. This allows receipt of certain types of data from OCLC's PromptCat service, such as the Firm Order and Approval Order transactions.

A single Millennium Load Profile defines how the MARC data is loaded into the Millennium database and what parameters (such as encoding level) determine if an overlay of an existing record is performed. Additional Load Profiles may be acquired.

The records may be received directly from the vendor's computer via FTP, tape, or floppy disk.

The data received from the vendor must be in MARC format; the invoice data for each item must be contained in 98x fields per Innovative's specifications.

Some vendors who currently provide this data include: Academic Book Center, Baker and Taylor, Blackwell's Book Services, The Book House, Coutts, Harrasowitz, Majors, Midwest, and Yankee Book Peddler.

Approval Plan:

In the case of Approval Plan records, the vendor's data is usually received in advance of the items. As soon as the data is received, the bibliographic and order portions are loaded into the Millennium database as a new Bibliographic record, and a new Order record with a status of "Under Consideration," so that it will be available for automatic duplicate checking when individual firm orders are placed. The invoice portion of the data is placed in an "Invoices awaiting acceptance/rejection" file until the items arrive. Up to 3,000 items and 100 invoices can be kept in this file awaiting the library's decision.

After the items arrive, the library indicates which items it is rejecting by deleting the appropriate lines from the file of "Invoices Awaiting acceptance/rejection." Bibliographic records for items sent back to the vendor can, at the library's option, either remain in the database with the status of "Rejected" or be deleted from the database.

Firm Orders:

For Firm Orders, a Bibliographic and an Order record must already exist in the Millennium database before the library receives the MARC data from the book vendor. When the MARC data is received from the vendor, the system locates the correct Bibliographic record for a particular order based on the vendor supplying the order number in an appropriate 9xx field in the MARC record. Once the Bibliographic record is located, it is overlaid (or not) based on the encoding level of the incoming record. Since the Order record already exists in the system, a new (duplicate) Order record will not be created. The invoice portion of the data is placed in the "Invoices awaiting acceptance/rejection" file and may be reviewed and processed at any time. If, for some reason, the Order record number supplied by the vendor cannot be located in the system, the bibliographic data is not loaded (since the correct Bibliographic record to overlay cannot be determined with certainty); however, an entry with the invoice portion of the data is placed in the "Invoices awaiting acceptance/rejection" file, where it is possible to edit the "Order record number" so that the payment may be applied to the correct Order record on acceptance of the invoice.

Item Record Creation:

Vendors may transmit data in specified 9xx fields for automatic creation of Item records.

Notes: *Selection List records can be loaded using MARC record load techniques and do not require this product.*

Acquisitions Interface to External Accounting System 2601

This product provides two options for outputting invoice data (and, if desired, encumbrance transactions) in a manner that is suitable for entry into the check-writing or accounting system of the library's parent body. The options are:

- Printed vouchers, one voucher per invoice, or
- Machine-readable data, with numerous data elements included, from which the programmers who maintain the remote accounting system can extract the data they want.

Transactions to be output are contained in the Millennium "Payment History File," the file of all transactions recently posted to the library's fund accounts.

B&T Link Interface 2602

This product provides an interface between Millennium and Baker & Taylor's "B & T Link, Version 2.1, Module 1: Ordering." Using this product, after the library places an order with Baker & Taylor, using B & T Link, the data are then imported into the Millennium database, where Bibliographic and Order records are created automatically. In addition, Millennium will automatically encumber funds as appropriate.

The library uses a PC and the B & T Link program, provided by Baker & Taylor, to enter new orders. This involves keying the ISBNs of books the library wishes to buy and then entering the quantities desired for each library location (and the library fund to charge). Then, the library uses the B & T Link program to dial into Baker & Taylor's computers and transmit the order. While still connected, Baker & Taylor will transmit back brief bibliographic data for the items ordered, along with confirmation that it can supply them.

After confirmation has been received from Baker & Taylor, the library uses the B & T Link program on the PC to produce a report which is written to a disk file (the report is produced by the "Data Copy Utility 2.0 SDF" report function and is in the B & T Link "SDF" format). The last step is to transfer the data from this disk file into Millennium. This transfer can be done using PROCOMM (XMODEM protocol) from a PC which is connected to Millennium via its COM port (acting as a terminal). Alternatively, the transfer can be accomplished using the Millennium File Transfer Software (FTS) from a PC which is connected to Millennium via Ethernet and has FTP software.

The interface provides a conversion of the B&T SDF file format for loading. Following the successful transfer and load, Millennium will add Bibliographic and Order records to the database and encumber funds as appropriate.

Books-In-Print Interface 2603

This product provides the capability for Millennium to receive data in the "MARC Tagged" format from a PC which has the BIP or Global BIP CD-ROM. Millennium will reformat that data into the MARC communications format, creating Bibliographic and Order records in the Millennium database. Data is received by Millennium from the PC via file transfer using XMODEM or FTP.

Additional Accounting Units 2604

Millennium's Acquisitions module can be acquired with additional "accounting units." Each accounting unit contains its own set of Order records and fund files. Staff associated with one

accounting unit will be prevented from seeing or accessing Fund records from another accounting unit. Staff from all accounting units can view each other's Order records, but they will only be allowed to *update* Order records which belong to their own accounting unit.

Although each accounting unit has its own Order records, all Order records are linked to a common, shared bibliographic file. Thus, staff associated with one accounting unit can attach an Order record to a Bibliographic record entered by staff in another accounting unit; this is true even if the accounting unit which entered the Bibliographic record has attached its own Order record to it.

Each accounting unit has the following distinct files and capabilities:

- Its own block of unique order numbers.
- Its own file of up to 750 different funds.
- Its own set of four pay files into which invoices are entered.
- Its own set of files from which purchase orders can be printed, claims can be generated/printed, etc.
- Each accounting unit can do its own posting and produce its own set of Fund Reports, completely independent of the other accounting units.
- All accounting units share a common vendor file unless the multiple serials units product is also acquired (see Product 2605).

Additional accounting units should be acquired when separate institutions are sharing a single system and the system administrator wants absolute assurance that staff from one institution do not inadvertently use or view fund information belonging to another institution. If your system already has Order records in it, please contact Innovative about the issues involved in converting existing records to work with this feature.

Additional Serials Units 2605

Millennium's serials module can be acquired with one or more "serials units." Each serials unit contains its own set of serials Checkin (holdings) records. Staff who are associated with one serials unit will be allowed to view serials Checkin records belonging to another unit, but they will only be allowed to *update* records belonging to their own unit.

Although each serials unit has its own serials Checkin records, all serials Checkin records are linked to a common, shared bibliographic file. This means that staff associated with one serials unit can attach a Checkin record to a Bibliographic record entered by staff in another serials unit; this is true even if the serials unit which entered the Bibliographic record has attached its own serials Checkin records to it.

Each serials unit has the following distinct files:

- Its own block of unique serials Checkin record numbers.
- Its own set of work files to keep track of issues that need to be claimed, to be bound, etc.
- Its own set of files in which to keep track of people to whom journal issues are routed.

Serials units share a common vendor file unless the multiple accounting units product is also acquired (see Product 2604).

Additional 40 Review Files 2606

The standard Millennium system supports the creation and storage of up to 80 ad-hoc reports at one time. Each of these reports is contained in a "Review File," of which there are 80. This product adds an additional 40 such review files.

Transmit Electronic ILL Requests - British Lib ARTEmail 2620

Adds to the basic capabilities of the ILL module support for the electronic transmission of Inter-library Loan requests to the British Library ARTEmail system.

Community/Campus Information Database 2700

This product allows the library to build a database of campus or community information and make it available to OPAC users, with the same types of indexes and displays available in the library's regular database. The product includes up to eight phrase indexes and one keyword index. The data may be stored in the MARC Community Information Format or a simpler format, as the library desires. Millennium's Create Lists function (with ten Review Files) is included with the database.

Notes: *Additional disk space to hold the database will be required.*

Events Calendar 2701

This allows the library to easily establish and maintain a Calendar of Events such as a Community Events Calendar. Patrons may locate events by a variety of access points, such as Event Name, Organization/Sponsor/Speaker, or Subject. Browse lists always display in chronological order. Patrons may also search by flexible date terms and keywords, such as "12-5-98," "Monday," "April Weekends," or "April 5." Patrons may also browse a calendar display

from the earliest event in the database. The library can automatically suppress events from public display when the event date has passed. The staff maintains Event records easily. When one Event record is created, the system automatically asks the staff member whether the event occurs on multiple dates and then generates multiple records.

Notes: *Additional disk space to hold the database will be required.*

Local Databases 2702

This product provides the ability to store locally defined databases, such as archival material, union lists, or newspaper clippings, as another database in Millennium. Access to the database is available from the OPAC. This type of database can have Checkin (holdings) records and Authority records in addition to Bibliographic records. These databases are powerful reference tools for patrons. Staff maintain data separately from the library catalog and use variant thesaurus and headings. The data may be stored and indexed using Millennium tags or MARC tags in up to eight phrase indexes and one keyword index. Millennium's Create Lists function (along with ten review files) is included.

Notes: *Additional disk space to hold the database will be required. Circulation, Authority Control, Acquisitions, and Serials Processing are not currently supported.*

INN-View Books in Print Database 2703

This service provides access over the Internet to the Books in Print reference database mounted on computers at Innovative headquarters. Searching is performed using the familiar Millennium user interface. The connection is seamless, and patrons need not be aware of where the database is located. It includes links to the library's serial holdings, which allow patrons to view holdings information for retrieved journal citations. Links to holdings are updated on a quarterly basis.

INN-View Wilson's Index to Legal Periodicals Database 2704

This service provides access over the Internet to the Wilson's Index to Legal Periodicals reference database mounted on computers at Innovative headquarters. Searching is performed using the familiar Millennium user interface. The connection is seamless, and patrons need not be aware of where the database is located. It includes links to the library's serial holdings, which allow patrons to view holdings information for retrieved journal citations. Links to holdings are updated on a quarterly basis. Coverage is 1981 to present.

INN-View Legal Resources Index 2705

This service provides access over the Internet to the IAC's Legal Resources Index mounted on computers at Innovative headquarters. Searching is performed using the familiar Millennium user interface. The connection is seamless, and patrons need not be aware of where the database is located. It includes links to the library's serial holdings, which allow patrons to view holdings information for retrieved journal citations. Links to holdings are updated on a quarterly basis. Coverage is from 1980 to present.

Notes: *Innovative includes database licensing for certain databases in its fees. Certain other databases must be licensed directly with the publisher, and the library must obtain a license for the use of the data. Your Millennium system must be on the Internet to use this service.*

INN-View Authority Validation Service 2710

This provides validation of new headings against the entire LC MARC authority file through Innovative's INN-View service. This product is used interactively while editing a record in Millennium or reviewing the Millennium "Heading Changes Report." It provides the staff person with the ability to check headings against the entire LC subject and name authority file and to download an Authority record into the library's Millennium system, causing the local Bibliographic records to be corrected. The LC authority file is located at Innovative's offices.

Notes: *Access to INN-View requires that the library's Millennium system is connected to the Internet. There is an annual fee for this product.*

INN-View Delivery of Table of Contents Records 2711

Libraries may subscribe to Innovative's ongoing automatic service that identifies pertinent new table of contents records and delivers them monthly over the Internet.

INN-Reach Central Software 2720X

2720A INN-Reach Catalog Central Site Software

Millennium INN-Reach Catalog software stores and displays on a central system the records created on linked, local Millennium sites.

Software includes real-time record updating from each of the linked local Millennium systems. Real-time updating includes additions of new records and changes to records, including circulation status and due date.

The INN-Reach Catalog is available in Web-based and character-based modes. Software also includes transparent searches from participating local Millennium users to the INN-Reach Catalog or access to the INN-Reach Catalog through an Internet gateway in their local Millennium system.

Included in the INN-Reach software are standard Millennium database and OPAC functions:

- Eight "phrase" indexes
- One keyword index
- A record-number index
- Create lists with forty review files
- A statistics program
- Library Information screens
- Analysis of searches performed in previous ten days

The INN-Reach Catalog software also includes an additional index for the record numbers from the local sites plus special management programs to monitor the load of records from the local sites. On the INN-Reach Catalog itself, there is no record editing or updating capability. All record additions and/or updates are transmitted from the local sites.

Access to the INN-Reach Catalog from non- Millennium search users via modem or network or by non-INN-Reach Catalog members is available based on the purchase of simultaneous user licenses.

Notes: *User licenses are required for all access except for transferred searches in character-based mode.*
Prerequisites: Local sites much each have 2721A.

2720B INN-Reach Patron Circulation

Ability for patrons to request items from other participating consortium libraries and for the system to pass patron/item information between systems for circulation. Only patrons who are valid patrons on one of the participating local systems are allowed to place requests to other systems.

Software on the central site includes statistics, which show volume of patron requests, fulfillments, and cancellations made between participating consortium members. These statistics are available in a Web-based display.

Each participating local Millennium system must be a part of the INN-Reach Catalog with records loaded to the INN-Reach Catalog. INN-Reach Circulation software must be installed on the INN-Reach Catalog before local site implementation.

INN-Reach Connectivity (Local Site Portion) 2721X

2721A Data Conversion and Transparent Searching to INN-Reach Central Catalog

At the time a local system joins an INN-Reach System, Innovative uploads all existing records from the local site. Record loading and subsequent real-time updating to the INN-Reach Catalog is achieved by network connections from each local system to the INN-Reach Catalog. INN-Reach Catalog upload programs run on each local system, with data being converted to INN-Reach Catalog format upon transmission to the INN-Reach Catalog.
Transparent Searching allows patrons searching their local Millennium system to transfer searches to the INN-Reach Catalog without re-keying the search criteria. Transferred searches in the character-based mode do not count in user license totals on the INN-Reach Catalog.

2721B INN-Reach Requests and Circulation for Local Sites

This includes local programs to perform the circulation functions involving items or patrons from other INN-Reach Catalog consortium systems.

Software on each local site includes:

- Special software to create virtual Item and Patron records with information transferred from the other consortium libraries.
- The ability to print special paging slips.
- Indexing barcodes from virtual items received from other systems.

Indexing Using Special Filing Rules 2900XXX

If data are loaded or to be output using a coding system other than that used by OCLC, RLIN, or the Library of Congress, then appropriate "character set code conversion tables" need also to be acquired.

2900ARA Arabic
(Indexes Arabic in 880 fields and other fields).

2900CJK Chinese/Japanese/Korean
(Indexes CJK in 880 fields, provides automatic Romanization function).

2900CYR Cyrillic
(Indexes Cyrillic in 880 fields and other fields).

2900EST Estonian
(Sorts the in the following order: a, b, c, d, e, f, g, h, I, j, k, l, m, n, o, p, q, r, s, š, z, z with hacek, t, u, v, w, õ, ä, ö, ü, x, y.

2900GAL Galician
(Sorts "ñ" after and separately from "n").

2900HEB Hebrew
(Indexes Hebrew in 880 fields and other fields).

2900JPN Japanese
(Provides interface to "Happiness" software to automatically generate KataKana – with spaces – from Kanji and Hiragama).

2900POL Polish
(Sorts Polish "L" after and separately from Romanized "L"; "c" with acute accent after and separately from "c"; "n" with acute accent after and separately from "n"; "o" with acute accent after and separately from "o"; "s" with acute accent separately and after "s"; "z" with acute accent after and separately from "z"; "z" with dot above separately and after "z" with acute accent; "a" with ogonek separately and after "a"; "e" with ogonek separately and after "e").

2900SPA Spanish
(Sorts "ñ" after and separately from "n").

2900SWE Swedish
(Sorts "ö", "ä", and "å" after "z").

2900THAI Thai
(Divides Thai into words when doing keyword indexing).

2900TUR Turkish
(Sorts "i" without dot before and separately from "i" with dot; sorts "g" with brev after and separately from "g"; sorts "ö" after and separately from "o"; sorts "ü" after and separately from "u"; sorts "ç" after and separately from "c"; sorts "s" with cedilla after and separately from "s").

Web OPAC User Interface Languages 2901XXX

Note: One of these is included with the standard system. Additional ones may be acquired as desired. Library also might need to acquire appropriate "character code conversion tables."

2901CHIT	Chinese (Traditional)
2901CHIS	Chinese (Simplified)
2901ENG	English
2901A-ENG	English (Australian)
2901EST	Estonian
2901FRE	French
2901GAL	Galician
2901GER	German
2901IRE	Irish
2901ITA	Italian
2901JPN	Japanese
2901POL	Polish
2901POR	Portuguese
2901SPA	Spanish
2901SWE	Swedish
2901THAI	Thai
2901TUR	Turkish
2901WEL	Welsh

Staff User Interface Languages 2902XXX

Note: One of these is included with the standard system. Additional ones may be acquired as desired. Library might also need to acquire appropriate "character set code conversion tables."

2902CAT	Catalan
2902CHIT	Chinese (Traditional)
2902CHIS	Chinese (Simplified)
2902ENG	English
2902A-ENG	English (Australian)
2902EST	Estonian
2902FRE	French
2902JPN	Japanese
2902POL	Polish
2902POR	Portuguese
2902SPA	Spanish
2902SWE	Swedish
2902THAI	Thai
2902TUR	Turkish

Character Set Code Conversion Tables 2903XXX

Note: Standard system includes Windows 1251 and VT220 (both ISO Latin1); T160E (ALA), and Unicode (UTF-8).

2903WIN1250	Windows Code Page 1250 (ISO Eastern Europe)
2903WIN1251	Windows Code Page 1251 (Cyrillic)
2903WIN1254	Windows Code Page 1254 (ISO Latin 5 Turkish)
2903WIN1255	Windows Code Page 1255 (Hebrew)
2903WIN1256	Windows Code Page 1256 (Arabic)
2903WIN1257	Windows Code Page 1257 (Baltic countries)
2903BIG5	BIG5 (Traditional Chinese and Japanese)
2903GB	GB (Simplified Chinese)
2903CCCII	4 byte CCCII/EACC code used by JOIN and WINMASS for Chinese, Korean, and Japanese
2903JIS	Japanese
2903SJIS	Shift Japanese
2903THAI	Thai (TIS 620)
2903ISO6937	Polish

MARC Formats 2904XXX

Note: Standard system includes one MARC format. Certain combinations of other MARC formats may also be acquired.

2904US	U.S. MARC
2904UNI	UniMARC
2904CMARC	Taiwan MARC
2904CNMARC	Mainland China MARC
2904UK	U.K. MARC

Additional Upgrade from INNOPAC to Millennium 2950

Some libraries may have upgraded from an older INNOPAC system to a Millennium system by acquiring a subset of the features/products that are part of Millennium. They may then add, whenever they desire, these additional Millennium features/products:

2950A	Unlimited Data License for Records Option: Bibliographic, Item, Patron, Order, Authority, Serials Checkin/Holdings Records.
2950B	Unlimited Web OPAC Users Option.

2950C	Site License for PC Circ Program.
2950D	Display Formatted Table of Contents Option.
2950E	Reserve Book Room or Homebound Option.
2950F	Inventory Control Option.
2950G	Z39.50 Client with Broadcast Searching Option.
2950H	Z39.50 Server Option.
2950I	Electronic Ordering Option and Electronic Serials Invoice Interface Option.
2950J	Electronic Serials Claiming Option and SISAC check-in option.
2950K	Advanced Keyword Indexing with Relevance Ranking.
2950L	Millennium for Windows.
2950M	Increase Review Files from 40 to 80 Option.

HARDWARE PRODUCTS

Database Server 3000

Runs on UNIX systems such as Sun, IBM RS/6000, Hewlett Packard, or Compaq (Digital) Alpha. This machine also runs the Web and Z39.50 servers. Includes DAT tape unit and 1.4 KVA Uninterruptible Power Supply (UPS) with two 12V sealed batteries (with 3-6 year lifetime), capable of supplying power for approximately ten minutes, enabling Millennium to perform a graceful shutdown. Price quoted includes shipping and installation with currently supported version of UNIX.

Memory for Database Server 3001

3001A 64MG memory
3001B 128MB memory
3001C 256MB memory
3001D 512MB memory

Disk for Database Server 3002

Disk drives to hold system databases:

3002A 4.3GB disk, 7200 RPM
3002B 9.1GB disk, 7200 RPM
3002C 4.3GB disk, 10,000 RPM
3002D 9.1GB disk, 10,00 RPM

RAID Disk Options

RAID Controller 3090

This high throughput SCSI controller is the connection point for Millennium's RAID support. This controller allows Millennium to communicate with the specialized RAID controller in the **RAID-C** cabinet at the high speeds offered by a fast wide differential SCSI channel.

RAID Cabinet 3091

This powerful RAID device is the foundation of Millennium's RAID support. Housed within the RAID-C cabinet is a powerful dedicated RAID controller, able to support up to 25 GB of storage capacity (or up to 55 GB with addition of **RAID-CA**). This RAID controller, with its 16 MB of read/writeback cache and concurrent support for RAID levels 0+1 and 5, combines high performance with maximum reliability and redundancy. The controller supports up to 3,000 I/O operations per second, to offer high-speed throughput delivered via a two-channel SCSI controller. RAID offers reduced downtime in case of a disk failure through redundant storage on multiple disks. A complete RAID system, comprising a **RAID-CONT**, a **RAID-C** cabinet and an array of **RAID-2GB** or **RAID-4GB** disks, can allow a failed disk to be swapped without interruption of the Millennium system.

This reliable cabinet houses both the RAID controller and up to seven **RAID-2GB** or **RAID-4GB** disks. It uses hot-swappable, dual redundant power supplies and cooling fans, allowing the replacement of a failed power supply without interruption to Millennium operation.

A RAID set is a particular set of disks that are combined to offer redundant storage of data. The **RAID-C** and **RAID-CA** cabinets can accommodate more than one RAID set, and a RAID set may be split between a **RAID-C** and a **RAID-CA** cabinet if desired. **RAID-2GB** and **RAID-4GB** disks cannot be combined within the same RAID set.

Additional RAID Cabinet 3092

For large RAID configurations, which a single **RAID-C** cabinet cannot accommodate, one additional **RAID-CA** cabinet may be added. This cabinet offers the dual redundant power supplies and seven-disk capacity of the **RAID-C**, but does not house a RAID controller.

Additional Controllers 3093

3093-A 64MB Controller
3093-B 128MB Controller

RAID Disk Storage 4.3 GB 3094

These hot-swappable disk storage modules are used in the **RAID-C** and **RAID-CA** cabinets. A number of **RAID-4.3GB** disks are combined into a RAID set to offer redundant storage of data.

If a disk should fail within a RAID set, the redundant storage of the data on the other disks in the RAID set will allow Millennium to continue operating with no loss of data until the failed disk can be replaced. Because data is stored redundantly on multiple disks, the total available capacity of a set of RAID combined disks is less than the sum of their total storage. The amount of available storage varies depending on the configuration of the RAID set, specifically the number of spare or overhead disks and whether the RAID set is configured for RAID level 0+1 or RAID level 5.

RAID Disk Storage 9.1 GB 3095

Identical to the **RAID-4.3GB** described above, except that each **RAID-4.3GB** disk module offers 4.3GB of storage.

Notes: *Available for most DEC Alpha-based Millennium systems. A complete RAID solution requires one RAID-CONT, one RAID-C cabinet, and an appropriate number of RAID-4.3GB or RAID-9.1GB disks.*

Portable Barcode Reader 3100

The Portable Barcode Reader (Percon) can read Codabar and Code 39 barcodes of eight to fifteen digits, using a light pen. (Contact Innovative if another symbology is required, e.g., Interleave 2 of 5, Code 128, UPC.) The unit operates on three AA batteries which last for at least 30 hours of use. Its portable operation makes it suitable for certain Millennium circulation transactions when there is no electrical power or access to the Millennium system, or for portable inventory use. The reader has a barcode scanner, a 31-key keyboard, a 4-line display (16 characters per line). It contains 128K of memory to record various types of transactions such as checkouts, check-ins, renewals, and three types of in-house usage of material. The barcodes of items on the shelves can also be read in and recorded as part of inventory control. The number of transactions which can be stored in the unit's memory varies from 3,000 to 6,000 depending on the transaction mix (it takes more storage to record a checkout than it does to record a check-in).

Notes: *The unit has a DB15 RS232 port for transmitting its data to the Millennium system (Innovative provides an adapter to convert the DB15 to a DB25 connector).*

Light Pen 3101

A hand-held wand (held like a pen) that can read various types of barcodes: for example, Code 39, Codabar, etc.

CCD Scanner 3102

A hand-held scanner using Change-Coupled-Device Technology. It is held over a barcode (which may be up to 2.3" wide, and may be in any one of several symbologies such as Codabar and Code 39). The barcode is read when a trigger on the scanner is pressed.

Laser Scanner 3104

Usually mounted on a stand and reads barcodes as they are passed under it. The unit has a depth of field up to 27 inches and does 40 scans per second. A variety of barcode symbologies such as Code 39 and Codabar are supported.

Network HP LaserJet Printer 3105

The 3105 makes an excellent system printer. It comes equipped with an Ethernet (10BaseT and AUI) interface which connects to your library's Ethernet network for communication with Millennium. It also includes standard RS232 serial and bi-directional parallel interfaces for connection to a PC or other device. It is capable of printing seventeen pages per minute. Produces high quality printed output at 600 DPI. Capable of printing all Millennium printed materials. Uses cut-sheet letter-size paper with a capacity of 350 sheets. Legal-size paper required for Purchase Order and Claim notices.

Notes: Millennium communicates with the printer over an Ethernet interface.

Electronic Reserves Scanning Workstation ER1

This powerful workstation is used by library staff to easily scan and attach images of printed materials to Bibliographic records as part of the Millennium Electronic Reserves, and Local Image Linking products. It includes a high-speed Pentium-based PC running Windows 95, with a high-resolution display and an HP ScanJet scanner equipped with an Automatic Document Feeder.

The PC comes pre-loaded with Windows 95 and Innovative's scanning software. No additional software is required.

Electronic Reserves Print Station ER2

The ER2 is a high quality, high-speed laser printer which is used to print the documents previously scanned into the Millennium Electronic Reserves system. Communication with Millennium is via an Ethernet network connection. As a dedicated Electronic Reserves printer, Millennium will only offer this printer selection to patrons accessing Electronic Reserves, and not for other public printing functions such as Bibliographic record screens, allowing it to be placed behind a Reserves Desk without concern that printouts other than the Electronic Reserves material will be produced there.

Notes: *Millennium communicates with the ER2 over the Ethernet interface.*

Electronic Reserves Disk Storage (4GB) ER3

The images of documents scanned as part of the Millennium Electronic Reserves or Local Image Linking systems are stored in dedicated disk space, separate from the space used by the Millennium bibliographic database. Each ER3 unit has an estimated capacity of 5,000 scanned pages if scanning is done at the default 300 dots per inch, black and white. If higher scanning resolutions are used, or documents are stored as color images, the total number of pages per ER3 unit would be reduced. Selecting a lower resolution for scanned documents increases the total number of pages which can be stored per ER3.

Notes: *ER3 disk is not provided for RAID-based Millennium systems. ER3 is delivered as a 4 GB increase in RAID capacity.*

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MILLENNIUM STANDARD REPORTS

ALL of the reports listed below are automatically compiled by the system, with no system administration involvement, and are available immediately (without need to further collect data) by any authorized operator at any workstation at any time of day.

Reports can be printed, saved as a delimited file or e-mailed. Most Millennium reports can be also shown as a pie chart or bar graph.

Standard reports for Analyze Patron Searches, Collection Development, Fund Reports and Circulation Statistics are available using a standard Java-enabled Web browser, i.e., Netscape or Internet Explorer, as part of Millennium's Web Management Reports.

OPAC REPORTS

A record of all of the searches performed on Millennium in the most recent 10-day period is saved in a search history file. Millennium can analyze this file to provide reports on the searches performed. The following information is recorded for each search:

- The search statement that the user keyed.
- The index that was searched
- The number of "hits" that the search produced
- The time and date of the search
- The workstation from which the search was conducted

Millennium also automatically records the actions taken by the user in browsing the Library's collection, any further restrictions ("limits") the user applies to the search and the types of record displays the user invoked.

Millennium Analyze Patron Searches provides the following:

- Search statistics. Records the number of searches by date and hour of day for all workstations or a selected subset of user logins.

- Searches performed by index. How many searches were performed in the author, title, keyword, etc. indexes. Millennium records the number of records retrieved on average per search. Millennium records the actual searches as typed in by the users. The actual searches can be viewed by the operator and can be sorted alphabetically, by frequency (popularity) or limited to searches that resulted in no direct match in the database.

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- Workstation (login ID) used for searching. This could be used to analyze the distribution of OPAC workstations or to analyze branch library usage or off-campus usage. Actual searches performed at the workstation are recorded and displayed here.

- Current searches. An authorized operator can access a log of the current searches being performed on the OPAC. This report shows the actual search, the number of hits, the operation being used, the display involved and the network login ID used for the session.

CATALOGING REPORTS

Innovative's Cataloging Workstation for Windows automatically produces the following reports. Each of the following reports is maintained separately for each user name (login) and can also be viewed as a total for all users (logins). The totals can be cleared at a Library-selected interval, e.g., monthly, quarterly, etc.

- Bibliographic Records
  - records created (session)
  - records created (total)
  - records modified (session)
  - records modified (total)
  - records deleted (session)
  - records deleted (total)
  - total transactions (session)
  - total transactions (total)

- Authority Records
  - records created (session and total)
  - records modified (session and total)
  - records deleted (session and total)
  - total transactions (session and total)

- Item Records
  - records created (session and total)
  - records modified (session and total)
  - records deleted (session and total)
  - total transactions (session and total)

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In addition, Millennium's Authority Control Software provides the following reports on database headings:

- First-time heading use
- Invalid headings
- Duplicate call numbers, barcodes, etc.
- Blind references
- Duplicate authority records

If the Library uses Millennium's Automatic Authority Control software the following authority control reports are also available:

- Records updated by the Automatic Authority Control software
- Non-unique 4XXs
- Cross-thesaurus matches
- Near matches
- Busy matches

COLLECTION DEVELOPMENT REPORTS

These reports are available as part of Millennium's Web Management Reports. The Collection Development Reports may be accessed by any authorized operator from any workstation that supports Netscape, Internet Explorer or another standard Web browser. Note: these reports are compiled by an authorized operator and are then available for viewing by all other authorized staff.

- Age of collection report. Provides a decade-by-decade count of publication dates of items in the collection grouped by call number range. The publication date is taken from the IMPRINT field in the bibliographic records. Call number ranges are defined by entries in the SCAT (Statistical CATegories) table, which is maintained by the Library.

- Collection development report. Presents statistics on Cataloging, Acquisitions and Circulation activity over a selected time period grouped by call number range. The data reported for each call number range are:

  - Number of items in the call number range
  - Number of items and bibliographic records added in the range
  - Number of ordered items received and number of orders for which at least one payment has been made in the call number range
  - Total sum of payments for the call number range

- Number of items checked out for the call number range
- Average payment per order for the call number range
- Average number of circulations for each item in the call number range
- Average dollar cost per circulation

- Circulation crosstab. This is a report on circulation activity over a specified time period. It allows the Library to select which fields should be displayed in the rows and columns of the report. Using this report the patron type and item type fields can be cross-tabulated, showing which types of patrons borrow which types of items.

CIRCULATION REPORTS

The automatically gathered circulation statistics reports which are available are of three basic types:

1. Circulation activity over time
2. Current on-loan statistics
3. Usage statistics on a specific set of titles

All of the circulation reports listed in 1-3 are available as part of Millennium's Web Management Reports.

1. Circulation activity over time. These provide a cumulative report on activity during a specified period of time, including yesterday, day before yesterday, month-to-date, calendar year-to-date, user-specified time period (by month) and last month's activity. The system automatically maintains three years of circulation statistics.

    - Reports on ALL circulation activity. Each kind of circulation transaction that takes place is recorded in the system by workstation number (where it took place), location (that owns the item) and by hour. When the operator selects the time span that this report is to cover (such as year-to-date), the system will compile three reports for that period of time:

        - Circulation activity by workstation (or network login). This report shows the number of check-outs, check-ins, renewals, holds placed and recalls performed at each workstation. It also calculates the percent of total transactions done at each workstation.

- Circulation activity by item location. This report lists each location or branch and shows the number of its items that were checked-out, checked-in, renewed, had holds placed on them or were recalled. It also calculates the percent of total transactions for each location.

- All circulation transactions by hour. This report shows the number and percent of transactions that took place during each hour in the specified time span. All hours in which any circulation activity occurred will be included in the report.

- Check-out activity by patron and item codes. This option produces a detailed analysis of check-out activity. The operator can specify the following:

  - The time period to be covered – yesterday, year-to-date, etc.
  - The location(s) to be covered – all or selected locations
  - The type of analysis – by patron codes, item codes, call number, etc.

- Filled holds by patron and item codes. This option produces a detailed analysis of filled hold activity. A hold is "filled" when an item requested by a patron is checked-out to the patron. The operator selects the following parameters for the report:

  - The time period to be covered – yesterday, year-to-date, etc.
  - The location(s) to be covered – all or selected locations
  - The type of analysis – by patron codes, item codes, call number, etc.

- Hourly check-out activity. This option reports on the number of items checked out per hour and the number of patrons who have checked out items each hour. The reports are produced for a specific month, and are grouped by workstation or statistics group.

- Renewal activity by patron and item codes. This option produces a detailed analysis of renewal activity. A renewal is a check-out of an item to a patron that already has the item checked-out. The operator selects the following parameters for the report:

  - The time period to be covered – yesterday, year-to-date, etc.
  - The location(s) to be covered – all or selected locations
  - The type of analysis – by patron codes, item codes, call number, etc.

- Owning library / home library report. This report generates statistics on the number of items belonging to one location that were checked out to a patron from a different home library during a specified time period.

- Non-owned items circulated. This report displays counts of those items belonging to each location that were actually checked out at a different location.

- Booking activity by patron and item. This option produces a detailed analysis of booking activity. A booking is created with the Materials Booking function when a patron reserves the use of library materials for some future date and time. The operator selects the following parameters for the report:

    - The time period to be covered – yesterday, year-to-date, etc.
    - The location(s) to be covered – all or selected locations
    - The type of analysis – by patron codes, item codes, call number, etc.

- In-house use statistics by location. This report shows the activity of items used in the Library. There are three separate usage counts kept for each item; the Library decides for itself how to use each statistic. For example, count 1 may be used for items left by users on tables, etc.; count 2 may be items left at copy machines. The operator selects the time span to be covered by the report, and statistics by location are listed.

- Patron photocopy usage by PATRON CODE 3. The Circulation Statistics module offers an optional report that details patron photocopy use by the patron categories defined in the PATRON CODE 3 field of the patron record. The library defines the categories used in the PATRON CODE 3 field.

- Requests made by OPAC users. This report shows all requests made by patrons (using the Request Item option in the OPAC) that the Library decided to accept (i.e., place holds on or print paging slips for). The following information is available:

    - A two-dimensional report giving statistics on requests for each library location, broken down by the home library of the patron making the request.
    - Statistics on requests by the patron type
    - Statistics on requests by the item type
    - Number of requests by login / workstation
    - The actual requests made

2. Current on-loan statistics. These describe the items now on loan and which patron types have them.

    - Patrons that have items report. This option displays detailed statistics on all items that were checked out as of midnight last night. The operator will be able to view and print each of the following three reports.

        - Items checked out by patron type (includes number of patrons in each patron type category (as defined by the Library), number of patrons in each category which have items checked out, percentage of each patron type that have items checked out, number of items checked out, average number of items per patron, number of overdue items, number of patrons with fines and the total amount of fines.
        - Items checked out by item type (includes number checked out, overdue, number of outstanding fines and fine total broken down by item type).
        - Items checked out by location (same as above broken down by location).

3. Usage statistics on a specific set of titles. These show the circulation activity for specified titles in the database.

    - Circulation activity by title. This option allows the operator to specify a set of titles. The system then reports, title by title, the number of times the title has been checked out and the number of times the title has been used in-house. These statistics are calculated from the item records attached to each title, and reflect activity since the Millennium system was installed unless the Library arranges to include circulation activity counts during the initial database load. In this option the operator is allowed to list only high usage items, low usage items or all items.

4. Other circulation reports.

    - Purchase alerts. Purchase alerts are created when the number of holds placed on an item reaches the threshold set by the Library. At this point, the Library may want to buy more copies.

    - Circulation status. The system automatically maintains a list of all overdue items, all items with holds and all items on the holdshelf. The entire file or a subset of the records contained in the file may be sorted, printed, e-mailed or output as a delimited file.

- Circulation overrides. The circulation override file will contain messages from the system concerning:

    - Circulation due dates overridden
    - Patron and item blocks overridden
    - Fines waived

    A brief indication of the location, action, item, patron, time the override was done and the initials of the individual who did it will be shown.

ACQUISITIONS REPORTS

Funds And Fund Reports

Millennium funds are categories by which the Library wishes to track its expenditures. The Library can group these funds into entities called external funds when reporting to the Library's parent agency accounting system.

For each fund Millennium keeps track of the appropriation, the year-to-date expenditure, the current outstanding encumbrances and both the "free" balance and the "cash" balance. Year-to-date expenditure totals can also be kept for each of seven subfunds within each fund if the Library desires.

The Library specifies how the funds are to be grouped and subtotaled for each report it wants. Reports have a hierarchical form. A report can contain groups and subgroups of funds with those subgroups possibly divided into further subgroups. The system displays appropriations, expenditures, encumbrances and free or cash balances for each group, subgroup and fund in the report. These reports can be printed, displayed online or downloaded to a file. Millennium can graph the expenditures for the operator to review on either the workstation or the system printer. The operator can also:

- Compare up to nine funds
- Display every fund in alphabetical order
- Display funds that have spent over or under a operator-specified percentage of their appropriation

- Fund Activity Reports. Millennium automatically produces a Fund Activity Report for each of the Library funds. This report is similar to the monthly statement produced by a bank for each checking account. For the current accounting period it shows the balance at the beginning of the period and the new, current balance, as well as the starting and ending totals for appropriations, expenditures and encumbrances. The line item entries

show the changes made to these totals by each purchase or appropriation. Millennium reports if a fund is out of balance. These reports are essential audit trail documents.

- Old fund balance file. Archived financial reports of the Library may be viewed or printed using this report. The reports are those that existed in the system at fiscal close.

- Vendor Statistics. Use this function to compute statistics for vendors from a set of order records. The operator defines the parameters of the order records to be analyzed and the type of analysis. Some parameters are:

    - Analysis of vendor performance or activity
    - Time period covered
    - Serials included or excluded
    - Order types included or excluded
    - Range of order records analyzed

  The system can then generate the following statistics:

    - Number of orders placed, cancelled, and received
    - Number of claims sent
    - Total estimated price and actual expenditure for orders
    - Average delivery time
    - Number of open orders and total estimated price for open orders

INTERLIBRARY LOAN REPORTS

When items requested through ILL are received, the records for those requests are transferred to the file of filled ILL requests.

For each filled ILL request, Millennium displays:

- Date the patron requested the item
- Title of the requested item
- Name of the requestor and name of supplying institution
- Date filled, needs-to-be-returned-by date, and date returned

The file may be sorted by any of the above.

Millennium can produce the following statistical reports for filled ILL Requests:

- Total number of requests by ISSN number of the journal containing the requested article
- Total number of ILL requests made per month and the average length of time it took to fill those requests
- Total number of ILL requests filled each month and the average length of time it took to fill those requests
- Total number of ILL requests provided by each supplying library or institution, and the average length of time it took to fill those requests
- Total number of ILL requests filled for each borrowing requestor and the average length of time it took to fill those requests
- Total number of ILL requests filled for each of the following fields from the patron record: PATRON TYPE, PATRON CODE 1, PATRON CODE 2, PATRON CODE 3

Millennium can produce the following statistical reports for cancelled ILL Requests:

- Total number of cancelled ILL requests broken down by month requested and by reason the request was cancelled.
- Total number of cancelled ILL requests broken down by month cancelled and by reason the request was cancelled.
- Total number of ILL requests cancelled for each borrowing requestor.
- Total number of ILL requests cancelled for each of the following fields from the patron record: PATRON TYPE, PATRON CODE 1, PATRON CODE 2, PATRON CODE 3

NETWORK ACCESS ADMINISTRATION

Millennium provides the following network access reports:

- All rejected access attempts
- All non-local access attempts that were allowed
- Average number of connections, peak number of connections and number of connections rejected by hour

WEB ACCESS MANAGEMENT

For libraries using Millennium's Web Access Management software the system maintains statistics on the number of connections to remote databases by date and by hour. The report also shows the number of connections broken down by database used, by patron type making the connection and a table showing which patron types are using which databases.

ELECTRONIC COURSE RESERVES REPORT

For libraries using Millennium's Electronic Course Reserves software the system maintains the following statistics:

- Title of reserve item viewed electronically
- Publisher code for the item; codes are defined by the Library
- Patron record number of the person accessing the item
- Whether the item was printed or viewed
- Number of pages printed
- Amount charged to patron for printing or viewing if the Library charges for access to this material

The operator may specify the date range covered by the report; the system automatically maintains three years of statistics. The operator may view the data by date or by publisher code or may summarize viewing and printing statistics by article.

INFORMATION ABOUT THE SYSTEM

Using the Information About The System option allows the operator to display useful reports about the database including status information, values in various codes, and users currently on the system.

- File information. File information allows the operator to see a list of the status and number of records in the various Millennium system files in the catalog, circulation and acquisition modules. System status displays information about the Library's Millennium file system, including the current number of bibliographic, item, authority, order (acquisitions), check-in (serials control), patron and course records. Also listed is the number of records of each type that have been deleted. System status also shows the amount of space taken up by the Library's database; the size of the index and keyword files; the number of records in the transaction (journal) file and number of system messages.

- Database expansion status. This option may be used to determine the amount of Millennium's hard disk space currently in use by the Library's database and what remains free.

- Catalog Database status. Lists the:

    - number of branches (locations)
    - number of language codes
    - number of country codes
    - number of OPAC transactions
    - number of patron requests
    - number of patron suggestions
    - number of additional items to acquire (suggested by patrons in OPAC)
    - number of heading changes to review in the authority control reports

- Circulation status. Lists the:

    - number of circulation transactions so far today
    - number of items on holdshelf
    - number of hold pickup notices to print
    - number of recall notices to print
    - number of paging slips to print
    - number of purchase alerts to list
    - number of items on search
    - number of items with holds
    - number of items overdue
    - number of items waiting on the holdshelf
    - number of pickup and cancellation, recall and paging notices

- Acquisitions / Serials status. Lists the:

    - number of funds
    - number of vendors
    - number of routees
    - number of routings
    - number of encumbrances
    - number of invoice transactions awaiting posting
    - number of electronic invoices
    - number of records in payment history file

- number of purchase orders to send electronically or print
- number of claims
- number of binding pull-slips

- Codes used. This option displays various codes which have been set in the Millennium system. The Library can choose to display codes on the workstation or print a list of codes.

- Tasks being done by each login / port. Displays a report on which workstations are currently using Millennium and what functions they are performing.

- System messages. The system message file may contain messages from the system concerning problems encountered during circulation processing or record editing. The number of system messages waiting to be viewed is reported on the System Status screen in the Management Information subsystem. Millennium logs the month, date and time (based on a 24-hour clock) the problem occurred and the record numbers of any records involved.

CONTRACT CONSIDERATIONS

Because of the large and complex nature of library automation procurement -- and in order to allow for the unique requirements of each library -- Innovative recommends that all contract terms be examined, for both applicability and wording, should Innovative be selected as the supplier. Innovative has always found that open dialog is highly beneficial in clarifying areas of difference that may be otherwise obscured. Innovative believes that reaching mutually agreeable contract terms is in the best interest of both parties and anticipates no problem in satisfying the Library's specific contractual objectives.

Included in the supportive documentation is the proposed contract language desired by Innovative. In particular, Innovative would like to explore the wording and provisions regarding:

- Software Licensing Rights and Obligations
- Confidentiality
- Warranties
- Testing and Acceptance
- Consequential Damages and Indemnification
- Limitation of Liability
- Insurance
- Force Majeure
- Installation Process and Title
- Maintenance
- Termination
- Governing Law and Venue
- Confidentiality
- Payments
- Other Central Contract and Tort Provisions Related to the Project
- Any Performance Bond requirement
- Any references to liquidated damages

If selected as the supplier, Innovative anticipates no serious difficulty in securing contract language which is mutually agreeable to all concerned parties.

PROPOSAL TERMS AND CONDITIONS

Termination for Convenience

RESPONSE: Acknowledged

Termination for Default

RESPONSE: Innovative does not agree to the following condition: "All finished or unfinished work provided by the Contractor shall, at the County's option, become the County's property." Please refer to the Contract Considerations document included with this proposal.

Bid Bond, Certified or Cashier's Check

RESPONSE: Acknowledged. A bid bond, certified or cashiers check has not been indicated as a requirement for this proposal.

Performance Bond

RESPONSE: Innovative does not provide a Performance Bond. Please refer to the Contract Considerations document included with this proposal.

Liquidated Damages

RESPONSE: Innovative does not agree to the provision indicated under this category. Please refer to the Contract Considerations document included with this proposal.

THIS AGREEMENT is made this ____ th day of , 2001,

BY AND BETWEEN

INNOVATIVE INTERFACES, INC., an Equal Opportunity Employer, M/F, H/V company, incorporated under the laws of the State of California, hereinafter referred to as "Innovative Interfaces")

-and-

_____, (hereinafter referred to as the "Library")

WITNESSETH:

WHEREAS the Library wishes to install and use an automated library system to improve the operation of the Library; and,

WHEREAS Innovative Interfaces has represented and does hereby represent to the Library, subject to the terms and conditions hereof, that the computer equipment and related software and services to be supplied to the Library pursuant hereto, will satisfy the requirements of the Library as set forth hereunder;

NOW THEREFORE in consideration of the premises, and the mutual covenants and agreements herein contained, the parties hereto agree as follows:

1.0 INTERPRETATION

Where used in this Agreement, unless the context otherwise requires, the following words and phrases have the respective meanings set forth below:

1.01 "Agreement", "this Agreement", "herein", "hereunder" and similar expressions refer to this Agreement and the Schedules annexed hereto and referred to herein, all as amended from time to time, and the expression "Section" followed by a number means and refers to the specified section of this Agreement:

1.02 "MILLENNIUM", "System", or "Software" refers to the software developed by Innovative Interfaces for use in a library environment, including all components necessary for running an automated library system as described more particularly in Schedule D.

1.03 "Equipment" means the computer equipment and equipment peripheral thereto purchased by the Library.

1.04 "Installation Site" or "Site" means the room or rooms where the System is to be installed.

1.05 "Purchase Price" means the dollar amount set out in Schedule B, plus all applicable taxes and cost of transportation and/or installation specified in such schedule.

1.06 "Free Maintenance Period" means the period one (1) year after the first day of Initial Training (OPAC, Systems administration, evaluation).

2.00 SUPPLY OF SYSTEM

2.01 In consideration of the payment of the Purchase Price and subject to all the terms and conditions hereof, Innovative Interfaces shall:

(a) sell to the Library, and the Library shall purchase, the Equipment referred to in Section 3.00;

(b) supply to the Library under license the Software referred to in Section 4.00; and

(c) deliver to the Library the materials and documentation referred to in Section 5.00, and

(d) provide the training services as set out in Schedule A and C.

2.02 Subject to the other terms and conditions hereof, the System will be installed and will become operational in accordance with the implementation timetable set forth in Schedule C.

3.00 EQUIPMENT

3.01 The Equipment will consist of computer equipment as set out in Schedule A, to support the MILLENNIUM System, including all necessary components and peripherals for proper functioning.

4.00 SOFTWARE

4.01 Innovative Interfaces will supply to the Library the MILLENNIUM System, together with all Software needed for proper System operation.

4.02 Innovative Interfaces shall retain ownership of the Software and all modifications thereto, including new development. Each licensed Software product, and all reproductions, corrections, modifications, enhancements and improvements thereof, provided by Innovative Interfaces to the Library, are the exclusive and proprietary property of Innovative Interfaces. Title and full ownership rights in all licensed Software products and all reproductions, corrections, modifications, enhancements and improvements, and all related patent rights, copyrights, trade secrets, trademarks, service marks, related goodwill and Innovative Interfaces' intellectual property are reserved to and shall remain proprietary to Innovative Interfaces. The Library shall not remove or destroy any copyright, trade secret, proprietary or confidential legends or markings placed upon or contained or embedded within any licensed Software products and related materials.

4.03 Innovative Interfaces hereby grants to the Library, upon payment in full of the Purchase Price, a non-transferable, non-exclusive license to use a single copy of the MILLENNIUM Software in conjunction with the Equipment.

4.04 The Library agrees to keep confidential all material and documentation relating to the Software and any modification thereto. The Library will not make available or distribute any program code or description associated with the MILLENNIUM System in any form whatsoever to third parties, without the prior written approval of Innovative Interfaces.

5.00 DOCUMENTATION

5.01 Within two weeks of the signing of the Agreement, Innovative Interfaces will supply, at no cost to the Library, all standard materials then available for use by purchasers of MILLENNIUM Systems, including manuals, programming aids and other relevant materials and documentation. At the time of installation, Innovative Interfaces will provide complete System documentation to support all functions as specified in Schedule D.

5.02 All materials, documents and other information provided by Innovative Interfaces to the Library pursuant to Section 5.01 shall, if so identified by Innovative Interfaces at the time of delivery thereof, be and remain confidential in the possession of the Library and the Library shall not copy or disclose any of such confidential materials, documents or other information to any third party whatsoever.

6.00 SUPPLIES

6.01 The Library is responsible for the acquisition at its own expense of all supplies to be used in the day-to-day operation of the System, including, without limitation, paper, magnetic tape, ribbons for printers and forms.

7.00 SPECIAL DECLARATIONS

7.01 Innovative Interfaces represents and warrants that the Software will contribute to the System the qualities and functions described in Schedule D.

7.02 The Library will supply Innovative Interfaces with a tax exemption number or pay any and all State and Local taxes with respect to the acquisition by it of the System or any part thereof. If the Library becomes non-exempt at any time and such taxes become applicable, the Library agrees to indemnify Innovative Interfaces with respect to any liability or expense incurred by Innovative Interfaces in respect thereof.

7.03 Upon delivery to the Library of any portion of the Equipment, the Equipment will be insured by the Library on the same basis as the Library insures similar equipment. The Equipment will be insured for the replacement value of the Equipment until full payment has been made to Innovative Interfaces as provided hereinafter. Innovative Interfaces shall be entitled to receive written proof of insurance upon request.

7.04 Title to the Equipment shall pass to the Library at full payment of the Equipment. Prior to the passage of title, the Library shall not encumber the System or any part thereof nor permit a third party to take possession thereof in any way whatsoever prejudicial to the rights and interest of Innovative Interfaces therein.

7.05 At the time of delivery thereof and thereafter, until the Library acquires title thereto pursuant to this Agreement, Innovative Interfaces represents and warrants to the Library that Innovative Interfaces has and will have good title to the Equipment and the right to sell the same and that upon completion of the installation and full payment thereof, the Library shall obtain good and marketable title to the same and that all Equipment will be new and conform to the specifications set forth herein.

7.06 Innovative Interfaces represents and warrants that it has the full right to deliver to the Library the Software and that, on acceptance by the Library, the Library shall have license and rights granted herein to use the same free from any lien, claims, charges or encumbrances, and that such rights shall survive the expiration hereof; provided however, that the Library shall have no right to sub-license or assign its rights in respect to the Software or any part thereof.

7.07 Neither party shall divulge or disclose to any third parties any information concerning the affairs of the other party, which come to the knowledge of such party as a result or in performance of this Agreement, unless such information becomes publicly available through no fault of Innovative Interfaces or the Library.

7.08 Neither Innovative Interfaces nor the Library shall be liable to the other for loss, damage, or delay in the work caused by war, riot, the act or order of any competent civil or military authority, strikes, unauthorized work stoppage or by fire, flood, act of God or by any cause which is unavoidable and beyond its reasonable control. In addition, Innovative Interfaces is not liable for loss or damage suffered by the Library or any third party not caused by the employees, agents or Equipment of Innovative Interfaces.

7.09 Innovative Interfaces shall not be liable for indirect, incidental or consequential loss or damage however caused.

7.10 The Library may without notice to Innovative Interfaces, at its option, connect to the System purchased under this Agreement any equipment manufactured or supplied by others including, but not limited to, peripheral equipment, other computers, communications equipment, terminal devices, and the like, provided there is a standard, industry-established Ethernet or RS232 interface available. Innovative Interfaces shall promptly disclose, subject to confidentiality, trade secret, non-competition agreements, upon request to the Library the technical specifications for any given interface point on the System. The Library shall accurately and fully advise Innovative Interfaces, in writing, at least 30 days before it intends to connect a new class of hardware or hardware that will be directly connected to the CPU, and Innovative Interfaces shall have the right to inspect at its own cost the specifications and installation of any such new equipment. In the event that Innovative Interfaces is required to perform maintenance services on the System because of damage to the System resulting from the attachment of such equipment, such service shall be billed to the Library at the then-current standard hourly maintenance rates.

8.00 INSTALLATION AND TRAINING

8.01 All shipping and insurance costs to and from the site are included in the Purchase Price of the System, as listed in Schedule A. All payments to shipping agents and for insurance fees shall be made directly by Innovative Interfaces and the Library shall make no payments to any firm concerning the shipment, installation, and delivery of Equipment which is not a part of this Agreement and for which exact payments are not described.

8.02 Innovative Interfaces shall be responsible for all arrangements for the shipment of Equipment to the Library, and movement of the Equipment from the protective storage area within the library, to the prepared computer site within the library. Innovative Interfaces shall also be responsible for removal of all debris and packing materials from the Library site resulting from the installation of the Equipment or the Software.

8.03 Innovative Interfaces shall provide to the Library in a timely manner the information necessary to enable the Library to prepare the Installation Site for the Equipment in accordance with the instructions of Innovative Interfaces. The Library shall at its sole expense prior to the date agreed upon for hardware installation provide all necessary installations and the like which shall be required for proper functioning of the System. The Library will further ensure that, prior to the acceptance dates set out in Schedule C, access to the System in any form will be restricted to persons involved in the implementation of the System. The Library shall complete site preparation prior to the date of installation of the hardware, and the site shall thereafter be available for inspection and approval.

8.04 All costs and expenses related to the site preparation shall be at the sole expense of the Library.

8.05 Innovative Interfaces will provide staff for complete on-site training of Library personnel as set out in Schedule A.

8.06 Prior to the acceptance dates set out in Schedule C, Innovative Interfaces shall have first priority of access to and use of the System for purposes of diagnosis.

9.00 ACCEPTANCE

9.01 The testing of the System shall be completed jointly by Innovative Interfaces and the Library to the mutual satisfaction of the parties.

9.02 Acceptance of Equipment

Upon completion of the installation of the Equipment, Innovative Interfaces will notify the Library that such Equipment, as described in Schedule A, has successfully been installed.

9.03 Operational Testing

Upon completion of the installation of the System, Innovative Interfaces will notify the Library that the System is available to the Library for operational testing. Operational testing will be the use of the System testing profile data in actual operation. Innovative Interfaces agrees to correct problems found in the course of this operational testing.

The Library shall not use the Software for any purpose, except testing, prior to the System acceptance date. At the first use of the System for any purpose other than testing, such as general circulation, the System shall be deemed by the Library to be accepted in full.

9.04 The testing by the Library required by Section 9.03 shall continue for a period not to exceed 90 days from date of initial installation. Unless the Library provides Innovative Interfaces, in writing, with any claim that the System does not meet performance specifications on or before expiration of said 90 days, it will be conclusively presumed that the System has met all performance specifications.

9.05 Innovative Interfaces will provide to the Library, its representatives and consultants, such documentation and assistance as may reasonably be required by the Library in connection with the aforesaid acceptance tests.

10.00 PAYMENT

10.01 The Purchase Price for the System and all rights and benefits herein contained shall be payable in lawful money of the United States at the times and in the amounts set forth in Schedule B.

10.02 If the Implementation Schedule is delayed at the Library's request, payments shall be due at the times originally set.

11.00 WARRANTIES

11.01 Innovative Interfaces represents and warrants to the Library that:

(i) The Equipment and all components thereof, the Software and all other programming aids and all other items supplied to the Library under the provisions of this agreement, shall be and shall remain free from any and all defects and will conform to all stated specifications, provided that the Equipment and Software are used in accordance with Innovative Interfaces operating procedure and is not abused or misused.

(ii) As of the date upon which title to the Equipment is transferred to the Library, the Equipment will be owned by the Library, and no person, firm or corporation shall have any interest therein other than Innovative Interfaces and the Library pursuant to this Agreement.

11.02 The representations and warranties by Innovative Interfaces as provided for Section 11.01(i) shall continue in full force and effect for the free maintenance period following System Installation, but the expiration of such period shall not affect the rights of the Library hereunder in respect of any claim of which Innovative Interfaces has then received written notice from the Library under the provisions hereof.

11.03 If without the approval of Innovative Interfaces, the Library shall:

(i) exceed the System specifications as set forth in this Agreement; or

(ii) utilize the System for a purpose which is unrelated to MILLENNIUM applications; or

(iii) make modifications to the System or additions which will have an adverse impact on the System specifications as set forth in Schedule A,

then Innovative Interfaces shall be relieved from any responsibility for a breach of warranty under clause (i) of Section 11.01 and any other performance guarantees set forth in this agreement.

11.04 Innovative Interfaces expressly warrants this System for library related applications as specifically set forth in this Agreement, with a warranty of merchantability for this particular purpose. No other purpose which extends beyond the warranties as set forth herein are warranted or guaranteed.

11.05 If degradation in System performance occurs because the Library connects to the System equipment in violation of Section 7.10, then Innovative Interfaces is thereby relieved from any responsibilities from a breach of warranty as may be set forth in this Agreement.

11.06 The Software's performance and functionality both in isolation and in combination with other software will not be affected by the advent of the year 2000 or the occurrence of any leap year. In particular and without prejudice to the generality of the foregoing, the Software will:

(a) handle date information before, during and after 1st January 2000, including but not limited to accepting date input, providing date output, and accurately performing calculations on dates or portions of dates in a manner that is unambiguous as to century;

(b) function accurately and without interruption before, during and after 1st January 2000, without any changes in operation associated with the advent of that year or the end of the preceding year;

(c) respond to two-digit year date input in a way that resolves the ambiguity as to century in a disclosed, defined and predetermined manner without the need for human intervention.

12.00 TERMINATION

12.01 If, prior to payment by the Library of the Purchase Price in full, the Library defaults in payment of any sum due hereunder or otherwise fails to fulfill its obligations under this Agreement beyond 60 days after receipt by the Library of written notice from Innovative Interfaces of such default, then Innovative Interfaces shall have the immediate right to terminate this Agreement and revoke the software license by notice to the Library and to enter upon the Library's premises to repossess and remove any Equipment which is not fully paid for by the Library. The Library's obligation to pay all charges which shall have accrued shall survive any such termination of this Agreement by Innovative Interfaces and such taking of possession shall be without waiver of any other remedies Innovative Interfaces may have at law or in equity. In addition, the Library shall be responsible for reasonable costs of removal of the System, including but not limited to transportation and labor charges.

12.02 (i) If Innovative Interfaces does not fulfill its obligations to deliver, install and test the Equipment in accordance with the dates specified in Schedule C, or

(ii) If the System when installed does not meet the specifications set forth in Schedule D, or

(iii) If Innovative Interfaces is in default in respect of any covenant, representation, warranty and/or agreement provided herein, or

(iv) If any proceeding in receivership, liquidation or insolvency is commenced against Innovative Interfaces or its property, and the same be not dismissed within 30 days, or

(v) If Innovative Interfaces makes any assignment for the benefit of its creditors, becomes insolvent, ceases to do business as a going concern, or seeks any arrangement or compromise with its creditors under any statute or otherwise,

then the same shall constitute an event of default by Innovative Interfaces hereunder, and upon the happening of any of the aforesaid events, the Library may upon 60 days notice to Innovative Interfaces specifying Innovative Interfaces' default terminate this Agreement and such termination shall be without prejudice to any right the Library may have to damages at law or in equity; provided that if Innovative Interfaces or any of its Sureties, Guarantors or Indemnitors remedies such default within the said 60 days period, this Agreement shall remain in full force and effect.

13.00 GENERAL PROVISIONS

13.01 No party to this Agreement shall have the right to assign its rights or obligations under this agreement except with the written consent of the other party hereto, which consent will not unreasonably be withheld.

13.02 There are no understandings, agreements or representations, express or implied, between the parties hereto not specified or embodied herein. Any prior commitments, written or oral, made by either party to this Agreement are superseded by this Agreement.

13.03 This Agreement shall not be modified, amended, rescinded, cancelled or waived in whole or in part, except by written instrument signed by the parties hereto and no waiver of any of the provisions of this Agreement shall constitute a waiver of any of the other provisions hereof (whether or not similar) nor shall such waiver constitute a continuing waiver unless expressly so provided therein.

13.04 This Agreement shall be governed by and construed in accordance with the laws of the State of California.

13.05 In the event that a claim or cause of action arises out of the interpretation, performance, or breach of this contract, the prevailing party shall be entitled to a reasonable attorney's fee in addition to costs of suit. Venue for any action hereunder shall be in the county of Alameda, State of California.

13.06 This Agreement is not to be distributed by any party hereto to any third party, without the written approval of the other party hereto.

13.07 All notices to be given to or received by the parties hereto shall be in writing and shall be delivered by messenger or mailed by prepaid registered or certified first class mail, with return receipt requested, to any such party at its address which:

in the case of Innovative Interfaces shall be:

Innovative Interfaces
5850 Shellmound Way

Emeryville, California 94608
Attention: President

and in the case of the Library shall be:

Either party may by notice change its address for the purposes hereof. Any such notice shall be deemed to have been given, if delivered by messenger, on the date of its actual receipt, or, if delivered by mail, upon the date that it shall have been properly deposited in the mail.

13.08 Save as otherwise expressly provided, this Agreement shall enure to the benefit of and be binding upon the parties hereto, their respective successors and permitted assigns.

13.09 This Agreement is made and becomes effective only when executed by a duly authorized officer of both the Library and Innovative Interfaces.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date last written below.

THE LIBRARY

By: _____

Name:
Title:
Date:_____

INNOVATIVE INTERFACES, INC.

By: _____

Name: Gerald M. Kline
Title: CEO/President
Date:_____

SCHEDULE A
MILLENNIUM Hardware and Software

SCHEDULE A NOTES

- The Allowance given applies to the total price of this system configuration only. Therefore, no component of this package can be returned to Innovative Interfaces for credit or refunds, unless defective.

- For Innovative Interfaces to provide service and maintenance to the site, Internet access is required.

- The discount proposed applies to this configuration only. Any changes made to this configuration may result in the amount of the discount being changed.

- Prices do not include any applicable taxes, which are the responsibility of the library.

- All prices given are valid for a period of 120 days from the date of the proposal.

- Bibliographic and Authority data to be supplied in the MARC Communications format and Patron data to be supplied in an Innovative approved format; all data supplied in any other format(s) must first be reviewed by Innovative for analysis prior determining a price for loading into the System.

If ORACLE is the DBMS

- The Millennium system will be installed using Oracle 8I as the database management software. Oracle 8I software may be purchased through Innovative at a price to be quoted, or through an authorized reseller. Maintenance for Oracle software is performed directly by Oracle, and maintenance charges for Oracle 8I software is paid directly to Oracle.

- Millennium software can be licensed to operate only with UNIX based computers manufactured by Compaq (AlphaServer) and Sun Micro systems with Oracle is the DBMS. We cannot commit to HP and IBM, as they have not been tested or approved.

SCHEDULE B
PAYMENT SCHEDULE

System Total $_____

Due at contract signing	20%
Due at Initial Training[1]	40%
Due at Profile[2] Acceptance (or no later than 45 days from Initial Training, whichever is earlier)	20%
Due at Live Circulation[3] (or no later than 180 days from Initial Training, whichever is earlier)	20%

Payments will be due 30 days after invoice. Interest of 1% per month of the full outstanding amount will be charged for late payments.

These amounts are excluding taxes. The Library will be responsible for all applicable taxes.

1 Initial Training includes OPAC, Systems Administration, Evaluation.

2 Based on a test database of up to 200,000 records that are loaded into the System, which the Library will use to evaluate whether the agreed-upon profile specifications are met.

3 Refers to the first day that the Library uses a licensed Software module for patron real time checkin/out.

SCHEDULE C
PROJECT IMPLEMENTATION PLAN

From time to time the Library and Innovative Interfaces may jointly review this Project Implementation Plan and make such revisions to it as are mutually agreed upon in writing. This review shall also serve to clarify each Event, and establish intermediate Events and Dates as necessary. A delay in any one event shall cause a delay in all subsequent events. Delays are subject to rescheduling as resources are available.

ESTIMATED DATE OF EVENT	EVENT NUMBER	RESPONSIBLE PARTY	DESCRIPTION
_____ 2001, date of last signature	1	Both	Contract signing
Within 2 weeks of contract signing	2	Innovative	Provide access to User Manual and GSM to the Library
At least 45 Days prior to Initial Training	3	Library	Deliver data to Innovative *and* Submit completed worksheets to Innovative
At least 45 Days prior to Initial Training	4	Library	Prepare site for Hardware. *and* If applicable, the Third Party Hardware Vendor Installs CPU and make System accessible to Innovative
Within 120 days of Contract signing	5	Innovative	Initial Training begins.
Within 45 days after Initial Training	6	Library	Profile [4] Acceptance
TBD	7	Both	Full data load (Library loads data, Innovative monitors the load)
TBD following Profile Acceptance	8	Innovative	Additional training as purchased

4 Based on a test database of up to 200,000 records that are loaded into the System, which the Library will use to evaluate whether the agreed-upon profile specifications are met.

MILLENNIUM SYSTEM SPECIFICATIONS

The specifications for the modules purchased herein are as set forth in Schedule A, and the System specification more particularly described in the *MILLENNIUM User Manuals* CD-ROM and the *Getting Started* Manual on the Internet, which are incorporated herein by reference.

MAINTENANCE AGREEMENT

SOFTWARE MAINTENANCE:

a) One (1) year after the first day of Initial Training will constitute a Free Maintenance Period.

b) The Library will be billed the first month following the end of the Free Maintenance Period in advance at $_____[1]. Maintenance charges shall be subject to a possible price increase in years 3 through 5, which amount is not to exceed five (5%) percent per year of the yearly maintenance amount, or the annual Consumer Price Index (CPI), whichever is less. Thereafter, such maintenance may be continued, by mutual consent, at a cost to be negotiated.

c) If the Library decides to cancel the Agreement, Innovative must be notified 90 days prior to the annual maintenance renewal date.

d) The Library must provide physical and internet access to the System for Innovative to correct Software bugs and carry out modifications to the System for the purpose of maintaining the System, this would also apply to firewalls etc. Innovative will be responsible for all corrections at Innovative's expense.

e) Innovative will provide the Library with new releases of the licensed Software modules so long as the Hardware and operating system used for the System is sufficient and/or compatible for the load and operation of such new release. If the Hardware or operating system is deemed not to be sufficient for installation of the new release, then the Library shall be responsible for the cost of new hardware or operating system as may be required. If the Library declines to upgrade its Hardware or operating system to accommodate the upgrade to the licensed software, then the Library shall remain at its then current software release. For the purpose of this document, the term "new release" shall mean improvements in already licensed Software modules.

f) If the Library adds any additional Innovative Software modules to the System after the initial installation, the maintenance services shall be extended to cover the additional Software. The maintenance charges for such Software shall be based upon Innovative 's then-current maintenance rates. The additional cost of coverage for the additional Software shall be added to the annual maintenance amount.

g) Innovative will provide services 24 hours a day. Innovative will make its best efforts to return calls within 2 hours of receipt and repair Software within 48 hours of notice, excluding weekends and holidays.

h) This Maintenance Services Agreement does not include repair services or replacement parts due to damage caused by rain, fire, flood, lightning, tornado, windstorm, hail, earthquake, explosion, smoke, aircraft, motor vehicle, collapse of building, strike, riot, power failure or fluctuation, or other cause originating by reason of other than normal operation of the System, or Library's negligence or misuse of the System.

i) The Software shall be operated as the exclusive application on the Hardware.

CENTRAL SITE HARDWARE ("HARDWARE"):

a) The Library agrees to take reasonable care of the Hardware and not permit persons other than authorized representatives of the Hardware Manufacturer to effect adjustments or repairs to the Hardware.

b) From the first day of Initial Training to the expiration of the Hardware Warranty period as purchased in Schedule A, Innovative will coordinate services provided by the Hardware Manufacturer. Thereafter, the Library will coordinate services provided by the Hardware Manufacturer.

c) Upon expiration of the Hardware Warranty period, the Library will take full responsibility for both the Central Site Hardware and operating system administration. Alternatively, the Library may choose to retain Innovative for operating system administration at Innovative's standard rates.

d) The Library is responsible for independently purchasing additional equipment, operating system software, and licensing or other services beyond the initial configuration of the System.

e) Any services delay due to Library-supplied equipment failure, where such equipment was not purchased from Innovative, and over which Innovative has no direct control, shall be billable at Innovative's then current maintenance rates.

THE LIBRARY

By: _____

Name:
Title:

Date:_____

INNOVATIVE INTERFACES, INC.

By:_____

Name: Gerald M. Kline
Title: CEO/President

Date:_____

[1] This amount is excluded of taxes. The Library will be responsible for all applicable taxes.

THIS AGREEMENT is made this th day of , 2001

BY AND BETWEEN

INNOVATIVE INTERFACES, INC., an Equal Opportunity Employer, M/F, H/V company, incorporated under the laws of the State of California (hereinafter referred to as "Innovative Interfaces")

-and-

---------- (hereinafter referred to as the "Library")

WITNESSETH:

WHEREAS the Library wishes to install and use an automated library system to improve the operation of the Library; and

WHEREAS Innovative Interfaces has represented and does hereby represent to the Library, subject to the terms and conditions hereof, that the software and services to be supplied to the Library pursuant hereto will satisfy the requirements of the Library as set forth hereunder.

NOW THEREFORE in consideration of the premises, and the mutual covenants and agreements herein contained, the parties hereto agree as follows:

1.00 INTERPRETATION

Where used in this Agreement, unless the context otherwise requires, the following words and phrases have the respective meanings set forth below:

1.01 "Agreement," "this Agreement," "herein," "hereunder" and similar expressions refer to this Agreement and the Schedules annexed hereto and referred to herein, all as amended from time to time, and the expression "Section" followed by a number means and refers to the specified section of this Agreement:

1.02 "MILLENNIUM", "System", or "Software" refers to the software developed by Innovative Interfaces for use in a library environment, including all software specified in Schedule A.

1.03 "Purchase Price" means the dollar amount set out in Schedule B plus all applicable taxes and cost of transportation and/or installation specified in such schedule.

1.05 "Free Maintenance Period" means the period one (1) year after the first day of Initial Training (OPAC, Systems administration, evaluation).

2.00 SUPPLY OF SYSTEM

2.01 In consideration of the payment of the Purchase Price and subject to all the terms and conditions hereof, Innovative Interfaces shall:

(a) supply to the Library under license the Software referred to in Section 3.00; and

(b) deliver to the Library the materials and documentation referred to in Section 4.00.

(c) supply training as set out in Schedule A and C.

2.02 Subject to the other terms and conditions hereof, the System will be installed and will become operational in accordance with the implementation timetable set forth in Schedule C.

3.00 SOFTWARE

3.01 Innovative Interfaces will supply to the Library the MILLENNIUM Software needed for proper System operation.

3.02 Innovative Interfaces shall retain ownership of the Software and all modifications thereto, including new development. Each licensed Software product, and all reproductions, corrections, modifications, enhancements and improvements thereof, provided by Innovative Interfaces to the Library, are the exclusive and proprietary property of Innovative Interfaces. Title and full ownership rights in all licensed Software products and all reproductions, corrections, modifications, enhancements and improvements, and all related patent rights, copyrights, trade secrets, trademarks, service marks, related goodwill and Innovative Interfaces' intellectual property are reserved to and shall remain proprietary to Innovative Interfaces. The Library shall not remove or destroy any copyright, trade secret, proprietary or confidential legends or markings placed upon or contained or embedded within any licensed Software products and related materials.

3.03 Innovative Interfaces hereby grants to the Library, upon payment in full of the Purchase Price, a non-transferable non-exclusive license to use a single copy of the MILLENNIUM Software in conjunction with the equipment supplied by the Library as described in Schedule G hereto.

3.04 The Library agrees to keep confidential all material and documentation relating to the Software and any modification thereto. The Library will not make available or distribute any program code or description associated with the System in any form whatsoever to third parties without the prior written approval of Innovative Interfaces.

3.05 Before the Library loads a new release of the hardware manufacturer's operating system, the Library must receive confirmation from Innovative Interfaces that the Software is compatible with the new release.

3.06 If the Library makes any upgrades to the hardware or the hardware manufacturer's operating system which require Innovative Interfaces' assistance for installation and/or implementation, then the Library will pay Innovative Interfaces for time spent based on Innovative Interfaces' then-current rates.

4.00 DOCUMENTATION

4.01 Within two weeks of the signing of the Agreement, Innovative Interfaces will supply, at no cost to the Library, all standard materials published by and then available for use by purchasers of MILLENNIUM Systems including manuals, programming aids and other relevant materials and documentation. At the time of installation, Innovative Interfaces will provide complete System documentation to support all functions.

4.02 All materials, documents and other information provided by Innovative Interfaces to the Library pursuant to Section 4.01 shall, if so identified by Innovative Interfaces at the time of delivery thereof, be and remain confidential in the possession of the Library and the Library shall not copy or disclose any of such confidential materials, documents or other information to any third party whatsoever.

5.00 SUPPLIES

5.01 The Library is responsible for the acquisition at its own expense of all supplies to be used in the day-to-day operation of the System including, without limitation, paper, magnetic tape,

ribbons for printers and forms.

6.00 SPECIAL DECLARATIONS

6.01 Innovative Interfaces represents and warrants that the Software will contribute to the System the qualities and functions described in Schedule D.

6.02 The Library will supply Innovative Interfaces with a tax exemption number or pay any and all State and Local taxes with respect to the acquisition by it of the System or any part thereof. If the Library becomes non-exempt at any time and such taxes become applicable, the Library agrees to indemnify Innovative Interfaces with respect to any liability or expense incurred by Innovative Interfaces in respect thereof.

6.03 Innovative Interfaces represents and warrants that it has the full right to deliver to the Library the Software and that, on acceptance by the Library, the Library shall have license and good right to use the same free from any lien, claims, charges or encumbrances, so long as the Library shall own or control the equipment referred to in 3.03 (including additions and replacements), or any substantial part thereof and that such rights shall survive the expiration hereof; provided however, that the Library shall have no right to sub-license or assign its rights in respect of the Software or any part thereof.

6.04 Neither party shall divulge or disclose to any third parties any information concerning the affairs of the other party which may come to the knowledge of such party as a result or in performance of this Agreement, unless such information becomes publicly available through no fault of Innovative Interfaces or the Library.

6.05 Neither Innovative Interfaces nor the Library shall be liable to the other for loss, damage, or delay in the work caused by war, riot, the act or order of any competent civil or military authority, strikes, unauthorized work stoppage or by fire, flood, act of God or by any cause which is unavoidable and beyond its reasonable control. In addition, Innovative Interfaces is not liable for loss or damage suffered by the Library or any third party not caused by the employees, agents or equipment of Innovative Interfaces.

6.06 Innovative Interfaces shall not be liable for indirect, incidental or consequential loss or damage however caused.

7.00 TRAINING

7.01 Innovative Interfaces will provide staff for complete on-site training of Library personnel as set out in Schedule A.

7.02 Prior to the acceptance dates set out in Schedule C, Innovative Interfaces shall have first priority of access to and use of the System for purposes of diagnosis.

8.00 ACCEPTANCE

8.01 The testing of the System shall be completed jointly by Innovative Interfaces and the Library to the mutual satisfaction of the parties.

8.02 Operational Testing

Upon completion of the installation of the System, Innovative Interfaces will notify the Library that the System is available to the Library for operational testing. Operational testing

will be the use of the System testing Profile data in actual operation. Innovative Interfaces agrees to correct problems found in the course of this operational testing.

The Library shall not use the Software for any purpose, except testing, prior to the System acceptance date. At the first use of the System for any purpose other than testing, such as general circulation, the System shall be deemed by the Library to be accepted in full.

8.03 The testing by the Library required by Section 8.02 shall continue for a period not to exceed 90 days from date of initial installation. Unless the Library provides Innovative Interfaces, in writing, with any claim that the System does not meet performance specifications on or before expiration of said 90 days, it will be conclusively presumed that the System has met all performance specifications.

8.04 Innovative Interfaces will provide to the Library, its representatives and consultants, such documentation and assistance as may reasonably be required by the Library in connection with the aforesaid acceptance tests.

9.00 PAYMENT

9.01 The Purchase Price for the System and all rights and benefits herein contained shall be payable in lawful money of the United States at the times and in the amounts set forth in Schedule B.

9.02 If the Implementation Schedule is delayed at the Library's request, payments shall be due at the times originally set.

10.00 WARRANTIES

10.01 Innovative Interfaces represents and warrants to the Library that:

(i) The Software and all other programming aids and all other items supplied to the Library under the provisions of this agreement shall be and shall remain free from any and all defects and will conform to all stated specifications, provided that the Equipment and Software are used in accordance with Innovative Interfaces operating procedure and is not abused or misused.

(ii) As of the date upon which the Software license is granted to the Library, the Software can be used by the Library, and no person, firm or corporation shall have any interest therein other than Innovative Interfaces and the Library pursuant to this Agreement.

10.02 The representations and warranties by Innovative Interfaces as provided for Section 10.01(i) shall continue in full force and effect for the free maintenance period following System Installation, but the expiration of such period shall not affect the rights of the Library hereunder in respect of any claim of which Innovative Interfaces has then received written notice from the Library under the provisions hereof.

10.03 If without the approval of Innovative Interfaces, the Library shall:

(i) exceed the System specifications as set forth in Schedule A; or

(ii) utilize the Equipment for a purpose which is unrelated to MILLENNIUM applications; or

(iii) make modifications to the Equipment or additions not approved in writing by Innovative Interfaces.

then Innovative Interfaces shall be relieved from any responsibility for a breach of warranty under clause (i) of Section 10.01 and any other performance guarantees set forth in this agreement.

10.04 Innovative Interfaces expressly warrants this System for library related applications as specifically set forth in this Agreement, with a warranty of merchantability for this particular purpose. No other purpose which extends beyond the warranties as set forth herein are warranted or guaranteed.

11.00 TERMINATION

11.01 If, prior to payment by the Library of the Purchase Price in full, the Library defaults in payment of any sum due hereunder or otherwise fails to fulfill its obligations under this Agreement beyond 60 days after receipt by the Library of written notice from Innovative Interfaces of such default, then Innovative Interfaces shall have the immediate right to terminate this Agreement and revoke the software license by notice to the Library. The Library's obligation to pay all charges which shall have accrued shall survive any such termination of this Agreement by Innovative Interfaces and such taking of possession shall be without waiver of any other remedies Innovative Interfaces may have at law or in equity. In addition, the Library shall be responsible for reasonable costs of removal of the System, including but not limited to transportation and labor charges.

11.02 (i) If Innovative Interfaces does not fulfill its obligations to deliver, install and test the Software in accordance with the dates specified in Schedule C, or

(ii) If the System when installed does not meet the specifications set forth in Schedule D, or

(iii) If Innovative Interfaces is in default in respect of any covenant, representation, warranty and/or agreement provided herein, or

(iv) If any proceeding in receivership, liquidation or insolvency is commenced against Innovative Interfaces or its property, and the same be not dismissed within 30 days, or

(v) If Innovative Interfaces makes any assignment for the benefit of its creditors, becomes insolvent, ceases to do business as a going concern, or seeks any arrangement or compromise with its creditors under any statute or otherwise, then the same shall constitute an event of default by Innovative Interfaces hereunder, and upon the happening of any of the aforesaid events, the Library may upon 60 days notice to Innovative Interfaces specifying Innovative Interfaces' default terminate this Agreement and such termination shall be without prejudice to any right the Library may have to damages at law or in equity; provided that if Innovative Interfaces or any of its Sureties, Guarantors or Indemnitors remedies such default within the said 60 days period, this Agreement shall remain in full force and effect. Upon the happening of Section 11.02 (iv) or 11.02 (v), the Library will be entitled to receive and continue to use all materials related to all processes of the MILLENNIUM source

code for the MILLENNIUM Software.

12.00 GENERAL PROVISIONS

12.01 No party to this Agreement shall have the right to assign its rights or obligations under this agreement except with the written consent of the other party hereto, which consent will not unreasonably be withheld.

12.02 There are no understandings, agreements or representations, express or implied, between the parties hereto not specified or embodied herein. Any prior commitments, written or oral, made by either party to this Agreement are superseded by this Agreement.

12.03 This Agreement shall not be modified, amended, rescinded, cancelled or waived in whole or in part, except by written instrument signed by the parties hereto and no waiver of any of the provisions of this Agreement shall constitute a waiver of any of the other provisions hereof (whether or not similar) nor shall such waiver constitute a continuing waiver unless expressly so provided therein.

12.04 This Agreement shall be governed by and construed in accordance with the laws of the State of California.

12.05 In the event that a claim or cause of action arises out of the interpretation, performance, or breach of this contract, the prevailing party shall be entitled to a reasonable attorney's fee in addition to costs of suit. Venue for any action hereunder shall be in the county of Alameda, State of California.

12.06 This Agreement is not to be distributed by any party hereto to any third party without the written approval of the other party hereto.

12.07 All notices to be given to or received by the parties hereto shall be in writing and shall be delivered by messenger or mailed by prepaid registered or certified first class mail, with return receipt requested, to any such party at its address which:

in the case of Innovative Interfaces shall be:

Innovative Interfaces
5850 Shellmound Way
Emeryville, CA 94608
Attention: President

and in the case of the Library shall be:

Attention: Director

Any party may by notice change its address for the purposes hereof. Any such notice shall be deemed to have been given, if delivered by messenger, on the date of its actual receipt, or, if delivered by mail, upon the date that it shall have been properly deposited in the mail.

12.08 Save as otherwise expressly provided, this Agreement shall enure to the benefit of and be binding upon the parties hereto, their respective successors and permitted assigns.

12.09 This Agreement is made and becomes effective only when executed by a duly authorized officer of both the Library and Innovative Interfaces.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date last written below.

THE LIBRARY

By _____

Name:
Title:
Date:

INNOVATIVE INTERFACES, INC.

By _____

Name: Gerald M. Kline
Title: CEO/President
Date:

SCHEDULE A
MILLENNIUM SOFTWARE

(Software listed would be specific to the installation.)

SCHEDULE A NOTES

- The Allowance given applies to the total price of this system configuration only. Therefore, no component of this package can be returned to Innovative Interfaces for credit or refunds, unless defective.

- For Innovative Interfaces to provide service and maintenance to the site, Internet access is required.

- The discount proposed applies to this configuration only. Any changes made to this configuration may result in the amount of the discount being changed.

- Prices do not include any applicable taxes, which are the responsibility of the library.

- All prices given are valid for a period of 120 days from the date of the proposal.

- Bibliographic and Authority data to be supplied in the MARC Communications format and Patron data to be supplied in an Innovative approved format; all data supplied in any other format(s) must first be reviewed by Innovative for analysis prior determining a price for loading into the System.

If ORACLE is the DBMS

- The Millennium system will be installed using Oracle 8I as the database management software. Oracle 8I software may be purchased through Innovative at a price to be quoted, or through an authorized reseller. Maintenance for Oracle software is performed directly by Oracle, and maintenance charges for Oracle 8I software is paid directly to Oracle.

- Millennium software can be licensed to operate only with UNIX based computers manufactured by Compaq (AlphaServer) and Sun Micro systems with Oracle is the DBMS. We cannot commit to HP and IBM, as they have not been tested or approved.

SCHEDULE B
PAYMENT SCHEDULE

System Total $_____

Due at contract signing	20%
Due at Initial Training[1]	40%
Due at Profile[2] Acceptance (or no later than 45 days from Initial Training, whichever is earlier)	20%
Due at Live Circulation[3] (or no later than 180 days from Initial Training, whichever is earlier)	20%

Payments will be due 30 days after invoice. Interest of 1% per month of the full outstanding amount will be charged for late payments.

These amounts are excluding taxes. The Library will be responsible for all applicable taxes.

1 Initial Training includes OPAC, Systems Administration, Evaluation.

2 Based on a test database of up to 200,000 records that are loaded into the System, which the Library will use to evaluate whether the agreed-upon profile specifications are met.

3 Refers to the first day that the Library uses a licensed Software module for patron real time checkin/out.

SCHEDULE C
PROJECT IMPLEMENTATION PLAN

From time to time the Library and Innovative Interfaces may jointly review this Project Implementation Plan and make such revisions to it as are mutually agreed upon in writing. This review shall also serve to clarify each Event, and establish intermediate Events and Dates as necessary. A delay in any one event shall cause a delay in all subsequent events. Delays are subject to rescheduling as resources are available.

ESTIMATED DATE OF EVENT	EVENT NUMBER	RESPONSIBLE PARTY	DESCRIPTION
_____ 2001, date of last signature	1	Both	Contract signing
Within 2 weeks of contract signing	2	Innovative	Provide access to User Manual and GSM to the Library
At least 45 Days prior to Initial Training	3	Library	Deliver data to Innovative *and* Submit completed worksheets to Innovative
At least 45 Days prior to Initial Training	4	Library	Prepare site for Hardware. *and* Third Party Hardware Vendor Installs CPU and make System accessible to Innovative
Within 120 days of Contract signing	5	Innovative	Initial Training begins.
Within 45 days after Initial Training	6	Library	Profile[4] Acceptance
TBD	7	Both	Full data load (Library loads data, Innovative monitors the load)
TBD following Profile Acceptance	8	Innovative	Additional training as purchased

4 Based on a test database of up to 200,000 records that are loaded into the System, which the Library will use to evaluate whether the agreed-upon profile specifications are met.

SCHEDULE D
MILLENNIUM SYSTEM SPECIFICATIONS

The specifications for the modules purchased herein as set forth in Schedule A, and the System specification more particularly described in the *MILLENNIUM User Manuals* CD-ROM and the *Getting Started* Manual on the Internet, which are incorporated herein by reference.

SCHEDULE E
LIBRARY SUPPLIED HARDWARE

[To be supplied by the Library in discussion with Innovative. Hardware must meet Innovative's criteria for performance and capacity]

SOFTWARE MAINTENANCE AGREEMENT

a) This Maintenance Agreement will cover all licensed Software.

b) One (1) year after the first day of Initial Training will constitute a Free Maintenance Period.

c) The Library will be billed the first month following the end of the Free Maintenance Period in advance at $_____[1]. Maintenance charges shall be subject to a possible price increase in years 3 through 5, which amount is not to exceed five (5%) percent per year of the yearly maintenance amount, or the annual Consumer Price Index (CPI), whichever is less. Thereafter, such maintenance may be continued, by mutual consent, at a cost to be negotiated.

d) If the Library decides to cancel the Agreement, Innovative must be notified 90 days prior to the annual maintenance renewal date.

e) The Library must provide physical and internet access to the System for Innovative to correct Software bugs and carry out modifications to the System for the purpose of maintaining the System, this would also apply to firewalls etc. Innovative will be responsible for all corrections at Innovative's expense.

f) Innovative will provide the Library with new releases of the licensed Software modules so long as the equipment and operating system used for the System is sufficient and/or compatible for the load and operation of such new release. If the equipment or operating system is deemed not to be sufficient for installation of the new release, then the Library shall be responsible for the cost of new equipment or operating system as may be required. If the Library declines to upgrade its equipment or operating system to accommodate the upgrade to the licensed software, then the Library shall remain at its then current software release. For the purpose of this document, the term "new release" shall mean improvements in already licensed Software modules.

g) If the Library adds any additional Innovative Software modules to the System after the initial installation, the maintenance services shall be extended to cover the additional Software. The maintenance charges for such Software shall be based upon Innovative's then-current maintenance rates. The additional cost of coverage for the additional Software shall be added to the annual maintenance amount.

h) Innovative will provide services 24 hours a day. Innovative will make its best efforts to return calls within 2 hours of receipt and repair Software within 48 hours of notice, excluding weekends and holidays.

i) Any services delay due to Library-supplied equipment failure, where such equipment was not purchased from Innovative, and over which Innovative has no direct control, shall be billable at Innovative's then current maintenance rates.

j) This Software Maintenance Services Agreement does not include repair services or replacement parts due to damage caused by rain, fire, flood, lightning, tornado, windstorm, hail, earthquake, explosion, smoke, aircraft, motor vehicle, collapse of building, strike, riot, power failure or fluctuation, or other cause originating by reason of other than normal operation of the System, or Library's negligence or misuse of the System.

k) The Software shall be operated as the exclusive application on the equipment.

THE LIBRARY

By: _____

Name:
Title:

Date:_____

INNOVATIVE INTERFACES, INC.

By:_____

Name: Gerald M. Kline
Title: CEO/President

Date:_____

[1] This amount is excluded of taxes. The Library will be responsible for all applicable taxes.

MILLENNIUM TRAINING OUTLINE

Overview

The schedule below is a sample outline of the 12 days of basic training that Innovative recommends for libraries purchasing the Millennium system. Additional training on System Maintenance is covered during training on individual modules as appropriate. Please note that both the number of days and the content of training programs may be revised according the Library's needs.

Please refer to the Implementation schedule in the Library's contract to note the months during which training will occur. Talk with the Training Consultant about establishing specific training dates within those months and designing a training plan appropriate for the Library. Innovative is prepared, if the Library desires, to schedule additional training sessions for an additional charge.

Training Schedule

MODULE – FUNCTION	Days of Training
INSTALLATION	As Needed
OPAC (Online Public Access Catalog) MODULE Searching the database OPAC features such as: Analysis of patron searches Patron suggestions Report Generator, including: Creating lists of records Statistical reports	1.0
SYSTEM MAINTENANCE Backing up data to tape Passwords Loading records from tapes Various system files	1.0

CATALOGING MODULE Keying and updating records Downloading from bibliographic utilities Authority control Item records for circulation	2.0
CIRCULATION MODULE Includes Reserves & Circulation parameters (half day)	2.5
ACQUISITIONS MODULE Includes downloading from bibliographic utility Acquisition parameters (half day)	3.5
SERIALS CONTROL MODULE	2.0

Training Recommendations

The 12 days of training are spread over three to five different on-site visits by an Innovative Training Consultant. Depending on the Library's requirements, the on-site visits can occur over a period of several months.

- Innovative Training Consultants use hands-on training methods; trainees learn how to use Millennium on a live system. Accordingly, Innovative recommends that no more than eight (8) staff members attend each training session and learn on no more than four (4) terminals. Innovative Training Consultants have learned these numbers are optimal during training. However, Innovative will remain flexible to accommodate the Library's training needs. Please direct any questions or concerns about this to the Training Consultant.
    - *Supervisors should attend training sessions relating to their areas.* Training sessions include discussion of various system options, and supervisors will want to participate in making decisions on how to use the options.
    - *At least one or two members of the library staff should be designated as system coordinators.* Innovative recommends that they attend *all* of the training sessions for continuity.
- The goal of each session is that library staff will understand how to implement and use the module on which they were trained.
- In order to allow time for the information provided during training to be fully absorbed and to allow for follow-up questions and discussion, no more than four days of training should be scheduled during any one visit by an Innovative Training Consultant.
- Each training day consists of a full seven hours of training, including breaks, but excluding lunch (typically 9am - 12pm; 1pm - 5pm). The Library is responsible for making arrangements for the appropriate staff to be present once the Library and Training Consultant agree on the schedule.
- Innovative is prepared, if the Library should so desire, to schedule additional training sessions for an additional charge of $1,000 per day.

TRAINING OUTLINE

The outline below is general in scope and subject to change, depending on equipment, people and the system and modules purchased.

If the Library has purchased hardware from Innovative, the Training Consultant assigned to the Library will install and test it. The hardware installation typically takes 2 - 4 hours, but may take longer. The Training Consultant may require some assistance with locating computer terminals, phone lines and so forth. Otherwise, this installation time does not involve the trainees or other Library staff.

Introduction

- Introduction to Millennium, its basic design and use
- Use of menu-driven system
- Structure and content of records

OPAC (Online Public Access Catalog) Module

- Types of indexes
- Search result: singular, multiple, no-hit
- Displays of different types of records:
  - Bibliographic records
  - Order information
  - Check-in information
  - Circulation item information and availability
  - Authority records
- Redirecting searches:
  - to other subject headings in record
  - to items nearby on the shelf
- Using cross references to redirect searches
- Limiting multiple-hit search results:
  - Limiting by language, date or location
  - Combining qualifiers with Boolean operators

- Keyword searching:
  - Combining keywords in a single search
  - Strategy and input order of search request

- Library information screens:
  - Public service information screens concerning Library hours, borrowing privileges, etc.
  - Patron online suggestion box

- Connecting to other system for search access

Management Information & the Report Generator

- Information about the system:
  - Online display of file sizes
  - Online display of system codes

- Types of records:
  - Bibliographic records
  - Item records
  - Patron records
  - Authority records
  - Order records
  - Check-in records
  - Course records for reserves

- Creating lists of records and specialized subsets of the database:
  - Searching on fixed-length field information
  - Searching on variable-length field information
  - Combining searches using Boolean operators
  - Sorting and printing output

- Creating statistical reports

- Analyzing patron searches. Automatic system reporting of all searches by:
  - Type of search
  - Which terminal used
  - Time of search
  - Unsuccessful searches

- View patron suggestions from online suggestion box

System Maintenance

- Backing up the system data to tape:
  - Loading/unloading the tape unit
  - Files which should be backed up
  - Frequency of backup function
  - Logs charting backups done

- Maintaining the password file:
  - Levels of authorization
  - What functions have passwords
  - Entering user initials and password in file
  - Authorizing user for particular functions

- Maintaining system codes:
  - Fixed-length codes
  - Branch location codes
  - Branch addresses
  - Language and country codes

- Maintaining default settings for new records:
  - Bibliographic, authority and item records
  - Patron and course records

- Hardware details of Millennium:
  - Power on/off switch - requirements and restrictions
  - Meaning and significance of signal lights
  - Cable configuration and connections

- Other hardware:
  - Printer loading and ribbon changing
  - Wand reader settings
  - Battery backup unit

- Loading raw MARC files

Cataloging Module

- Keying new bibliographic records:
  - Using fixed-length and variable-length fields
  - MARC tagging and Millennium tagging
  - System defaults and keying aids

- Downloading records from bibliographic utility (e.g., OCLC, RLIN, Bibliofile, WLN):
  - Setting and changing download parameters
  - What fields transfer; how they look after downloading

- Search results: singular, multiple, no-hit
  - Display of records; differences between staff and patron displays

- Redirecting searches; using same capabilities as found in the patron access mode

- Updating and maintaining records:
  - Update on a per record basis
  - Batch update using Rapid Update
  - Transfer attached records

- Deleting records from the database:
  - Deleting individual records
  - Batch deletions

Authority Control Module

- Keying new authority records:
  - Types of fields and MARC tags

- Updating authority records

- Catalog maintenance reports, automatic reports from Millennium on activity that might require authority control or record maintenance:
  - New headings for author or subject headings
  - Invalid headings
  - Blind references
  - Duplicate entries for ISBN and record number indexes

- Global updates to headings:
  - Updating without verification
  - Updating with verification

- Deleting authority records from the system

Circulation Module

- Circulation parameters

- Patron records:
  - Types and uses of variable-length fields
  - Purpose and uses of fixed-length fields and codes
  - System defaults for codes and how to modify them
  - Deleting patron records from the system
  - Restrictions on deleting patron who has items checked out

- Updating patron records:
  - Updating on a per-record basis
  - Batch updating of records

- Patron records:
  - Displaying items checked out to patron
  - Displaying items for which patron has placed a hold
  - Examining fines assessed and paid by patron

- Circulation item records:
  - Attaching item records to a bibliographic record
  - Types and uses of variable-length fields
  - Purpose and uses of fixed-length fields and codes
  - System defaults for codes and how to modify them

- Deleting item records from the system:
  - Restriction on deleting when item is checked out to a patron

- Updating item records:
  - Updating on a per-record basis
  - Batch updating of records

- Using wand readers and laser scanners

- Checking out and checking in items

- Due date--information the system uses for automatic calculation of the due date:
  - item type
  - patron type
  - shelving location
  - calendar

- Overdues--system calculation of when item is overdue:
  - Generation of overdue notices

- Renewals:
  - Calculation of the new due date
  - Circumstances permitting renewal

- Holds:
  - Placing a hold for a specific copy
  - Placing hold for copy returned soonest
  - Maintaining the hold file
  - Clearing the hold shelf
  - Canceling holds

- Fines:
  - How fines accrue
  - Assessing special charges for services, e.g., photocopies
  - Recording payments
  - Billing for non-response to return notice

- Reserve room functions:
  - Establishing a course record, with course number, course name and professor
  - Placing items on reserve and linking them to a course record
  - Changing status and location for reserve item
  - Removing items from reserve
  - Circulation restrictions for reserve items

- Printing notices:
  - Overdue notices
  - Recall notices
  - Pickup notices
  - Hold cancellation notices

- Creating and using lists of records:
  - Searching by codes and types of records
  - Printing specialized lists
  - Using lists to perform batch-mode updating such as re-registration of classes of patrons

Acquisitions Module

- Placing orders and encumbering funds:
  - Keying new records – input new bibliographic and order records. Input records for both recently received items and new orders.
  - Retrieval – basic searching methods
  - Printing worksheets in worksheet function and retrieval
  - Updating records
  - Printing purchase orders
  - Receiving ordered items

- Maintaining the Vendor File:
  - Entering new vendors
  - Updating existing vendors

- Financial functions:
  - Processing invoices for received materials, for on-going serials, etc.
  - Posting; printing registers; and updating financial files
  - Displaying and printing financial reports
  - Establishing new funds and fund reports
  - Making fund adjustments – appropriations, credits, adjustments
  - Posting adjustments to fund files
  - Producing fund activity reports
  - Maintaining posting register logs
  - Daily, monthly routines; yearly fiscal close procedure

- Downloading from bibliographic utility:
  - Downloading bibliographic and order information using predetermined code defaults
  - Overriding defaults; specifying fund, vendor, and other codes
  - Retaining codes/data for subsequent records

- Claiming/canceling orders:
  - Claiming outstanding orders
  - Delaying claims
  - Canceling orders – how to notify vendor; when vendor notifies you

- Advanced retrieval techniques:
  - Creating lists of records; sorting and printing; saving and copying review files
  - Vendor information
  - Statistics

Serials Module

- Creating check-in records:
  - Check-in records
  - Check-in cards: how to handle regular and irregular frequencies; standing orders

- Checking in serial issues:
  - Expected issues
  - Additional or unexpected issues

- Maintaining check-in records:
  - Modifying issue information, check-in card parameters
  - Archiving check-in records

- Building bibliographic records for serials:
  - Keying records
  - Downloading from bibliographic utility

- Routing functions:
  - Establishing the routing file: names/addresses of people to whom issues are routed
  - Linking journals to names for routing
  - Maintaining routing lists
  - Printing routing labels during check-in

- Check-in labels:
  - Establishing formats
  - Coding check-in records for type of label
  - Printing labels during check-in

- Claiming issues:
  - Claiming late issues during check-in
  - Reviewing portions of the serials file systematically and claiming overdue issues
  - Printing claim letters

- Binding:
  - Finding issues to bind
  - Sending issues to the bindery
  - Checking in bound volumes upon their return from the bindery

- Special lists of serials:
  - Creating lists of serial records
  - Searching for specific issue information
  - Sorting items in the list
  - Specifying data to print

COUNTY OF FREDERICK AFFIRMATIVE ACTION DATA FORM

The County of Frederick has established a program to ensure equal opportunity in its project bidding. We are asking you to help us in this effort by completing the Applicant Affirmative Action Data Form below. Completing the Data Form will assist us in monitoring the effectiveness of our program. THIS FORM WILL BE FILED SEPARATELY FROM YOUR BID PROPOSAL AND WILL NOT BE USED TO DISCRIMINATE IN ANYWAY IN THE PROJECT BIDDING OR AWARD PROCESS. The completion of this form is required for your participation and consideration.

1. **PROJECT:** Request for Proposal

2. **DATE:** June 20, 2001

3. **NAME OF BIDDER:** Innovative Interfaces

4. **TYPE OF BUSINESS ENTITY:**

a.	_____	Individual
b.	_____	Sole Proprietorship
c.	_____	General Partnership
d.	_____	Limited Partnership
e.	_____	Limited Liability Company
f.	_____	S-Corporation
g.	_____	C-Corporation
h.	X	Professional Corporation

5. **PERCENTAGE OF OWNERSHIP INTEREST (i.e., 1% - 100%):**

a. Based on Ethnic Origin:

1.	X	% White
2.	_____	% Black/African-American
3.	_____	% Hispanic
4.	_____	% Asian
5.	_____	% American Indian or Alaska Native

b. Based on Gender:

1.	X	% Male
2.	_____	% Female

Note: Ethnic origin is defined by the Federal Equal Employment Opportunity Commission as follows:

White - (Not of the Hispanic Origin) All Persons having origins in any of the original peoples of Europe, North Africa or the Middle East.

Black - (Not of the Hispanic Origin) All Persons having origins in any of the black racial groups of Africa.

Hispanic - All Persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish culture or origin, regardless of race.

Asian or Pacific Islanders - All persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent or the Pacific Islands. This area includes, for example, China, Japan, Korea, the Philippine Islands and Somoa.

American Indian or Alaskan Native - All persons having origins in any of the original peoples of North America and who maintain cultural identification through tribal affiliations or community recognition.

6. **HOW DID YOU LEARN OF THE PROJECT FOR WHICH YOU ARE SUBMITTING A BID?**

a. _____ Walk-in
b. _____ Newspaper Advertisement
c. _____ Cable Television Announcement
d. _____ Posted Announcement
e. X Other - Explain: THE RFP WAS FORWARDED TO OUR CORPORATE OFFICES IN EMERYVILLE, CALIFORNIA.

References

1) **Alameda County Public Library**
Administrative Headquarters
2450 Stevenson Blvd.
Fremont, CA 94538

FAX Number : 510-793-2879

Contacts:

Director	**: Linda Wood**	**510-745-1536**
	lwood@aclibrary.org	
Coordinator	**: Pam Johnson**	**510-745-1552**
	pjohnson@library.org	
Contact	**: Cindy Barba**	**510-745-1556**

2) **Berkeley Public Library**
2121 Allston Way
Berkeley, CA 94704

FAX Number : 510-845-7598 (Admin)
510-644-6649 (Tech Fax)

Contacts:

Director	**: Jackie Y. Griffin (ContactInfo Coming)**	
Coordinator	**: Kurt Kaywood**	**510-649-3923**
	kuk1@ci.berkeley.ca.us	
Contact	**: Rahime Butcher**	**510-649-3912**

3) **HALAN/Automation Dept. 4th floor**
c/o Houston Public Library
500 McKinney Ave.
Houston, TX 77002

FAX Number : 713-247-1182

Contacts:

Director	**: Barbara Gubbin**	**713-247-1651**
	bgubbin@hpl.lib.tx.us	

Coordinator : Cheryl Payne 713-247-2202
cpayne@hpl.lib.tx.us
Contact : Violet Johnson 713-247-3527

4) **Pennsauken Free Public Library**
5605 Crescent Blvd.
Pennsauken, NJ 08110

FAX Number : 856-486-0142

Contacts:
Director : Susan Briant 856-665-5959 ext 5
sbriant384@aol.com
Coordinator : Stephanie D'Angelico 856-665-5959 ext 18
dangelic@camnet.org
Contact : Ellen Eifert
eeifert@excite.com

5) **Westerville Public Library**
126 South State St.
Westerville, OH 43081-2095

FAX Number : 614-882-5369
614-882-4160 Kristen Hewitt

Contacts:
Director : Don Barlow 614-882-7277 ext. 140
dbarlow@wpl.lib.oh.us
Coordinator : Kristen Hewitt 614-882-7277 ext. 134
khewitt@wpl.lib.oh.us
Contact : Karen Albury 614-882-7277 ext. 168

6) **Wicomico County Free Library**
122-126 South Division St.
P.O. Box 4148
Salisbury, MD 21803-4148

FAX Number : 410-548-2968

Contacts:

Director : Kathleen Reif	**410-749-3612 ext. 13**
kreif@wicomico.org	
Coordinator : Vicki Greene	**410-749-3612 ext. 12**
vgreene@wicomico.org	
Contact : Natasha Jones	**410-749-3612 x11**

7) **Worcester County Library**
307 N. Washington St.
Snow Hill, MD 21863

Contacts:
Director : Stewart Wells

INNOVATIVE interfaces

LIBRARIES USING MILLENNIUM/INNOPAC SYSTEMS

ALABAMA
Alabama Supreme Court and State Law Library
Faulkner University
Jefferson County Library System
Tuscaloosa Public Library
University of Alabama Law School

ARIZONA
Arizona State University
Nogales-Santa Cruz County Public Library
Northern Arizona University
Phoenix Public Library
Pima County Community College
Pinal County Library District
Tucson-Pima Library
University of Arizona

ARKANSAS
Arkansas Supreme Court Library
Central Arkansas Library System
Fayetteville Public Library
Fayetteville School District
Phillips County Community College
Pulaski County Special School District
Rogers Public Library
Springdale Public Library
University of Arkansas, Fayetteville
University of Arkansas for Medical Sciences
University of Arkansas, Little Rock
University of Arkansas Law School, Little Rock
University of Central Arkansas
Washington County Library System
Westark College

CALIFORNIA
Academy of Art College
Alameda County Library
Alliant International University
Berkeley Public Library
Black Gold Cooperative Library System
Cabrillo College
Calexico Unified School District
California College of Arts & Crafts
California Institute of Technology
California Judicial Center Library
California Polytechnic University, Pomona
California Polytechnic University, San Luis Obispo
California State University, Fullerton
California State University, Hayward
California State University, Long Beach

CALIFORNIA (CONT.)
California State University, Los Angeles
California State University, Sacramento
California State University, San Marcos
    Center for the Study of Books in Spanish
California Western School of Law
Camarena Memorial Library
Chapman University
Chapman University Law School
Chula Vista Public Library
City of Beverly Hills, Information Technology
The Claremont Colleges
    Claremont Graduate University
    Harvey Mudd College
    Keck Graduate Institute
    Pitzer College
    Pomona College
    Scripps College
Contra Costa Community College
Coronado Public Library
Diablo Valley College
El Segundo Public Library
Evergreen Community College District
Gene Autry Western Heritage Museum
Getty Center for the History of Art and the Humanities
Golden Gate University
Graduate Theological Union
Hayward Public Library
The Huntington Library
JFK University
La Sierra University
Loma Linda University
Los Angeles Public Library
Los Medanos Community College
Loyola Marymount University
Loyola Law School
Marin Academic Library Consortium
    College of Marin
    Dominican University of California
MARINet
    Belvedere-Tiburon Library
    Marin County Library
    San Rafael Public Library
    Sausalito Public Library
    Mill Valley Public Library
Mc George Law School
Mechanics Institute Library
Menlo College
Mission College

CALIFORNIA (CONT.)
Monterey Institute of International Studies
Monterey Public Library
Monterey Park Public Library
Mount St. Mary's College
Mt. View Public Library
Occidental College
Orange County Law Library
Pacific Grove Public Library
Point Loma Nazarene College
Richmond Public Library
Riverside Community College District
St. Mary's College
Sacramento Public Library
San Bernardino Community College
San Diego County Public Law Library
San Diego State University
San Francisco Conservatory of Music
San Francisco Law Library
San Francisco Public Library
San Francisco State University
San Jose City College
San Jose State University
Ira F. Brilliant Center for Beethoven Studies
Santa Clara Public Library
Santa Clara University
Scripps Institution of Oceanography
Scripps Research Institute
Sonoma State University
Southwestern University Law School
Thomas Jefferson School of Law Library
University of California, Berkeley
University of California, Boalt Law School
University of California, Davis
University of California, Davis, Law School
University of California, Hastings Law School
University of California, Irvine
University of California, Riverside
University of California, San Diego
University of California, San Francisco, Medical School
University of California, Santa Cruz
University of Judaism
University of La Verne
University of Redlands
University of San Diego
University of San Francisco
University of Southern California Law School
University of the Pacific
Watsonville Public Library
West Valley Community College
Western State University Law School
Whittier College
Whittier Law School

COLORADO
Arapahoe Library District
Auraria Library
Aurora Public Library
Boulder Public Library
Broomfield Public Library
Colorado Alliance of Research Libraries
Colorado College
Colorado State University, Fort Collins
Denver Public Schools
Fort Lewis College
Jefferson County Public Library
Louisville Public Library
Loveland Public Library
Montrose Library
netLibrary, Inc.
Poudre School District
University of Colorado, Boulder
University of Colorado, Colorado Springs
University of Colorado Law School
University of Colorado Health Sciences Center
University of Denver
University of Denver Law School
University of Northern Colorado

CONNECTICUT
Central Connecticut State University
Connecticut State Library
Danbury Public Library
Darien Public Library
Eastern Connecticut State University
Greenwich Public Library
Hartford Public Library
Hotchkiss School
New Canaan Library
New Haven Free Public Library
Norwalk Public Library
Perrot Library
Quinnipiac University
Southern Connecticut State University
The Taft School
University of Connecticut Law School
Western Connecticut State University
Yale University Law School

DELAWARE
Widener University Law School

FLORIDA
Barry University, School of Law
Florida Coastal School of Law
Nova Southeastern University
Sanibel Public Library
Sarasota County Libraries Department
Stetson College of Law

FLORIDA (CONT.)
Supreme Court of Florida
University of Central Florida
University of Miami
University of Miami Law School
University of Miami Medical School

GEORGIA
Agnes Scott College
Mercer University
Mercer University Law School
Mercer University Medical School
University of Georgia Law School
Wesleyan College

IDAHO
Albertson College of Idaho
Idaho State Law Library
Northwest Nazarene University

ILLINOIS
Arlington Heights Memorial Library
Art Institute of Chicago
Center for Research Libraries
College of DuPage
College of Lake County
DePaul University
Elgin Community College
Glenside Public Library District
Helen M. Plum Memorial Library
Illinois State University
John Marshall School of Law
Moraine Valley Community College
Northeastern Illinois University
Northern Illinois Library System
Northern Illinois University
Southern Illinois University
Southern Illinois University Law School
Suburban Library System
University of Illinois, Urbana
University of St. Francis
Waukegan Public Library
Wheaton Public Library

INDIANA
Bremen Public Library
Crown Point Community Library
East Chicago Public Library
Evansville-Vanderburgh Public Library
Hammond Public Library
Knox County Public Library
Kokomo-Howard Public Library
Mishawaka-Penn Public Library
Monroe County Public Library
Plymouth Public Library
St. Joseph County Public Library

INDIANA (CONT.)
University of Notre Dame Law School
Valparaiso University

IOWA
Allen College Library
Cedar Falls Public Library
Central College
Clive Public Library
Council Bluffs Public Library
Des Moines Area Community College
Des Moine University – Osteopathic Medical Center
Grinnell College
Hawkeye Community College
Indianola Public Library
Iowa City Public Library
Luther College
Pella Public Library
Simpson College
University of Northern Iowa
University of Osteopathic Medicine & Health Sciences Library
Waterloo Public Library

KANSAS
Bethany College
Cowley Library Network
Southwestern College
Winfield Public Library
Emporia State University
Kansas State Historical Society
Kansas State Library
Kansas Supreme Court
The Menninger Clinic
Washburn University

KENTUCKY
Bellarmine College
Centre College
Lexington Theological Seminary
McCracken County Public Library

LOUISIANA
Centenary College
Louisiana State University Health Sciences Center Libraries
Loyola University Law Library
Rapides Parish Library
St. John the Baptist Parish Library
Tulane University Law School

MAINE
Bangor Public Library
Bates College
Bowdoin College

MAINE (CONT.)
Colby College
Maine College of Art
Maine Maritime Academy
Maine State Library System
Portland Public Library
University of Maine, Augusta
University of Maine, Farmington
University of Maine, Fort Kent
University of Maine, Machias
University of Maine, Orono
University of Maine, Portland, Law School
University of Maine, Presque Isle
University of New England
University of Southern Maine

MARYLAND
Allegany County Library System
Community College of Baltimore County
Frederick Cancer Research and Development Center
Goucher College
Maryland State Law Library
National Institute on Drug Abuse
National Institutes of Health
National Naval Medical Center
Park Lawn Health Library
Somerset County Library
U.S. Naval Academy
Uniformed Services University of the Health Sciences
Washington College
Wicomico County Public Library
Worcester County Library

MASSACHUSETTS
Amherst College
Atlantic Union College
Boston Library Consortium
Boston Public Library
Boston University
Clark Art Institute
Curry College
C/W Mars, Inc
Hampshire College
Massachusetts Eye & Ear Infirmary
Massachusetts General Hospital
Mount Holyoke College
New England School of Law
North of Boston Library Exchange
Northeastern University Libraries
Ropes and Gray
Simmons College Library
Smith College
Social Law Library
Stonehill College

MASSACHUSETTS (CONT.)
Suffolk University
University of Massachusetts
Wellesley College
Western New England College
Wheaton College
Williams College

MICHIGAN
Albion College
Albion Public Library
Andrews University
Aquinas College
Ave Maria School of Law
Bloomfield Township Public Library
Canton Public Library
Capital Area District Library
Center for Creative Studies
Central Michigan University
Cornerstone University
Detroit College of Law
Ferris State University
Grand Rapids Community College
Grosse Pointe Public Library
Grosse Pointe School District
Hillsdale College
Kalamazoo College
Lansing Community College
Library of Michigan
Marygrove College
Mayo Foundation
Michigan Library Consortium
Michigan Public Health Institute
Michigan State University
Ovid-Elsie Area Schools
Saginaw Valley State University
Southfield Public Library
Thomas M. Cooley Law School Library
University of Detroit Mercy Law School
University of Michigan, Ann Arbor
University of Michigan Business School
University of Michigan Law School, Ann Arbor
University of Michigan, Dearborn
Upjohn Company
West Bloomfield Public Library

MINNESOTA
Carleton College
Cooperating Libraries in Consortium
Hennepin County Law Library
Macalester College
Mayo Clinic
Minneapolis Public Library
St. Olaf College
St. Paul Public Library
William Mitchell College of Law

MISSISSIPPI
Jackson State University
Mississippi College
University of Mississippi
University of Mississippi Law School
William Carey College

MISSOURI
Camden County Library
Central Bible College
Christian County Library
Lebanon-Laclede County Library
Lincoln University
Ozarks Technical Community College
Pulaski County Library
St. Louis County Library
St. Louis University
Springfield-Greene County Library District
Stone County Library
Texas County Library
University of Missouri, Columbia
University of Missouri, Kansas City
University of Missouri, Rolla
University of Missouri, St. Louis
Washington University
Webster County Library

MONTANA
NIH – Rocky Mountain Laboratory

NEBRASKA
Chadron State College
Nebraska State College
Peru State College
University of Nebraska, Kearney
University of Nebraska, Lincoln
University of Nebraska, Omaha
University of Nebraska, Omaha, Medical Library
Wayne State College

NEVADA
Community College of Southern Nevada, Henderson
Community College of Southern Nevada, Las Vegas
Northern Nevada Community College
University of Nevada, Las Vegas
University of Nevada, Reno
Western Nevada Community College

NEW HAMPSHIRE
Daniel Webster College
Dartmouth College
Etna Library
Franklin Pierce Law Center
Howe Library

NEW HAMPSHIRE (CONT.)
Keene Public Library
Keene State College
Phillips Exeter Academy
Plymouth State College
Portsmouth Public Library
Rivier College
Rochester Public Library
Saint Anselm College
University of New Hampshire

NEW JERSEY
Bergen Community College
Brookdale Community College
East Orange Public Library
Essex County Community College
Maplewood Memorial Library
Moorestown Library
Pennsauken Free Public Library
Princeton Public Library
Rutgers University Law School, Camden
Rutgers University Law School, Newark
Seton Hall University Law School
West Orange Public Library

NEW MEXICO
Albuquerque Academy
Albuquerque/Bernalillo County Library System
Las Cruces Public Library
Santa Fe Public Library
University of New Mexico
University of New Mexico Medical School

NEW YORK
Adelphi University
American Museum of Natural History
Association of the Bar
Bard College
Brooklyn Law School
Buffalo State College
Canisius College
Capital District Library Council
Cazenovia College
Colgate University
College of New Rochelle
Columbia University Law School
Copiague Public Library
Cornell University Medical College
Culinary Institute of America
Daemen College
Dowling College
Eastern Suffolk BOCES School District
Miller Place School District
Ross School
Elmira College
Emma Clark Memorial Library

NEW YORK (CONT.)
Federal Reserve Bank
Fordham University Law School
Frick Art Reference Library
Great Neck Public Library
General Theological Seminary
Hartwick College
Interboro Institute
Juilliard School
Le Moyne College
Manhattan School of Music
Memorial Sloan-Kettering Cancer Center
Metropolitan Museum of Art
Middle County Public Library
Mount St. Mary College
National Baseball Hall of Fame
Nazareth College
New York Academy of Medicine
New York Botanical Garden
New York Law Institute
New York Law School
New York Public Library
New York State Department of Health
New York University Law School
New York University Medical School
Niagara Community College
Pace University
Rensselaer Polytechnic Institute
Rochester Institute of Technology
Rockefeller University
Siena College
Skadden, Arps, Slate, Meagher & Flom
St. John's University Law Library
St. Lawrence University
Suffolk Cooperative Library System
- Amityville
- Babylon
- Bayport
- Brookhaven
- Center Moriches
- Central Islip
- Cold Spring
- Commack
- Comsewogue
- Deer Park
- Dix Hills
- East Islip
- East Northport
- Hampton Bays
- Harberfields
- Islip
- Lindenhurst
- Longwood
- Mastics-Moriches-Shirley
- Melville
- North Babylon
- Northport
- Patchogue-Medford
- Port Jefferson
- Sachem
- Smithtown
- Shoreham
- South Country
- South Huntington
- West Babylon
- West Islip
- Westhampton
- Wyandanch

NEW YORK (CONT.)
Teachers College
Touro College
Union Theological Seminary
U.S. Military Academy at West Point
Vassar College
Yeshiva University Law School

NORTH CAROLINA
Appalachian State University
Barton College
Chapel Hill Public Library
Chowan College
Duke University
Fayetteville State University
Gardner Webb University
Johnson C. Smith University
North Carolina A&T University
North Carolina School of the Arts
Pembroke State University
Rockingham County Public Library
St. Andrews Presbyterian College
University of North Carolina, Asheville
University of North Carolina, Chapel Hill
University of North Carolina, Charlotte
University of North Carolina, Wilmington
Western Carolina University
Winston-Salem State University

OHIO
Ashland University
Baldwin-Wallace College
Belmont Technical College
Bowling Green State University
Capital University
Case Western Reserve University
Cedarville University
Central State University
Cincinnati Bible College and Seminary
Cincinnati State Technical College
Clark State Community College
Clermont County Public Library
Cleveland State University
College of Wooster

OHIO (CONT.)
Columbus College of Art and Design
Columbus State Community College
Cuyahoga Community College
Delaware County District Library
Denison University
Edison State Community College
Grandview Hospital
Hiram College
Hocking College
John Carroll University
Jefferson Community College
Kent State University
Kenyon College
Kettering Medical Center
Lakeland Community College
Lorain County Community College
Marietta College
Medical College of Ohio
- Flower Hospital Medical Library
- Mercy College of Northwest Ohio
- St. Vincent Mercy Medical Center
- Toledo Hospital Medical Library

Miami Valley Hospital
Miami University
Mount St. Joseph College
Mount Vernon Nazarene College
Northeastern Ohio University College of Medicine
Northwest State Community College
Notre Dame College
Oberlin College
Ohio Dominican College
Ohio Northern University
Ohio State University
Ohio University
Ohio Wesleyan University
OhioLINK
OHIONET
Owens Technical College
Public Library of Cincinnati and Hamilton County
Rio Grande Community College
Rodman Public Library
Shawnee State University
Sinclair Community College
Southern State Community College
State Library of Ohio
Taylor Memorial Public Library
Terra Community College
University of Akron
University of Cincinnati
University of Dayton
University of Toledo
Urbana University
Ursuline College

OHIO (CONT.)
Warren-Trumbull County Public Library
Washington State Community College
Westerville Public Library
Wittenberg University
Wright State University
Xavier University
Youngstown State University

OKLAHOMA
East Central University
Tulsa City-County Library System
University of Tulsa

OREGON
Baker County Libraries
Central Oregon Community College
Columbia Gorge Community College
Coos Bay Cooperative
- Bandon Public Library
- Coos Bay Public Library
- Coquille Public Library
- Dora Public Library
- Lakeside Public Library
- Myrtle Point Public Library
- Myrtle Point School District #41
- North Bend Public Library
- Powers Public Library

Southwestern Oregon Community College
Eastern Oregon University
George Fox College
Lane Community College
Le Grand Public Libraries
Lewis and Clark College
Linfield College
Marylhurst University
Orbis
Oregon Health Sciences University
- Oregon Graduate Institute of Science and Technology
- National College of Naturopathic Medicine Library

Oregon Institute of Technology
Oregon State University
Pacific University
Portland Community College
Reed College
Southern Oregon University
University of Oregon
University of Portland
Western Oregon University
Willamette University

PENNSYLVANIA
Academy of Natural Sciences
Allegheny College

PENNSYLVANIA (CONT.)
Allegheny County Law Library
Beaver County Community College
Beaver County Library System
Bryn Mawr College
Bucks County Free Library
Carnegie Library of Pittsburgh
Chemical Heritage Foundation
Chester County Public Library
Community College of Philadelphia
Delaware County Library System
DeSales University
Dickinson School of Law
Drexel University
Duquesne University Law School
Gettysburg College
Haverford College
Lafayette College
La Roche College
LaSalle University
Lehigh Carbon Community College
Luzerne County Library System
MCP Hahnemman University, Health Sciences
Mercyhurst College
Morgan, Lewis, and Bockius Law Firm
Muhlenberg College
Philadelphia Biblical University
Pennsylvania State University
St. Francis College
St. Vincent College
Swarthmore College
Temple University
Theodore Jenkins Memorial Law Library
University of the Arts
University of Pennsylvania School of Law
Villanova University Law School
Waynesburg College
Widener University

RHODE ISLAND
Brown University
Bryant College
Community College of Rhode Island
Consortium of Rhode Island Academic and Research Libraries (CRIARL)
Johnson and Wales University
Providence Athenaeum Library
Providence College
Rhode Island College
Rhode Island School of Design
Roger Williams University
Roger Williams University School of Law
Salve Regina University
University of Rhode Island

SOUTH CAROLINA
Coastal Carolina University
Columbia College
Converse College
Furman University
Lander University
Medical University of South Carolina
Presbyterian College
Winthrop University

TENNESSEE
David Lipscomb University
Fisk University
Maryville College
Nashville and Davidson County Public Library
University of the South
University of Tennessee Law School, Knoxville
University of Tennessee, Martin
University of Tennessee, Memphis, Health Sciences Center
Williamson County Public Library

TEXAS
Alamo Community College
Austin Community College
Baylor University
Bedford Public Library
Carrollton Public Library
Casey Memorial Library
Dallas County Community College
El Paso Community College
Fort Sam Houston Library
Houston Area Library Network
Houston Public Library
Houston Community College System
Kurth Memorial Library
Lancaster Veterans Memorial Library
North Richland Hills Public Library
South Texas College of Law
Texas A&M University at Corpus Christi
Texas A&M University at Kingsville
Texas A&M University at Texarkana
Texas Southern University Law
Texas Tech University
University of Houston
University of Houston, Clear Lake
University of Mary Hardin Baylor
University of North Texas
University of Texas, Austin
University of Texas, El Paso
University of Texas Health Science Center, San Antonio
University of Texas Law School at Austin
Ysleta Independent School District

UTAH
Church of Jesus Christ of the Latter-Day Saints, Historical Department
Salt Lake City Public Library

VERMONT
Vermont Law School

VIRGINIA
Averett College
Bridgewater College
Chesterfield County Public Library
Christopher Newport University
Fauquier County Public Library
Federal Reserve Bank
Hampden-Sydney College
Hollins University
Holston Academic Libraries
- Bluefield College
- Tazewell County Public Library
- Washington County Public Library

James Madison University
Norfolk State University
Old Dominion University
Radford University
Regent University
Roanoke College
Washington and Lee University

WASHINGTON
Cascadia Community College
Central Washington University
Eastern Washington University
Evergreen State College
St. Martin's College
Seattle Pacific University
Seattle University Law
Skagit Valley College
State Library of Washington
University of Puget Sound
University of Washington
University of Washington Law School
Walla Walla College
Washington State Department of Labor & Industries
Washington State Department of Transportation
Washington State Law Library
Washington State Library Media Center
Washington State University
Washington State Utilities & Transportation Commission
Western Washington University
Whitman College

WASHINGTON, D.C.
American University Law School
Catholic University of America Law School
District of Columbia School of Law
Executive Office of the President
Federal Reserve Board
Freer Gallery of Art
Georgetown University
Georgetown University Law Center
George Washington University Law School
Howard University
Howard University Law School
Law Firm of Wilmer, Cutler & Pickering
Internal Revenue Service
U.S. General Accounting Office

WEST VIRGINIA
West Virginia Wesleyan College

WISCONSIN
Beloit Public Library
Carroll College
Carthage College
Edgewood College
Indianhead Federated Library System
Marquette University
Marian College
Maude Shunk Public Library
Medical College of Wisconsin
Milwaukee County Federated Library System
Milwaukee Public Library
New Berlin Public Library
Northern Waters Library Service
Ripon College
Saint Norbert College
Silver Lake College
SWITCH Consortium
- Alverno College
- Cardinal Stritch College
- Milwaukee Institute of Art & Design
- Mt. Mary College
- Sacred Heart School of Theology
- Wisconsin Lutheran College

Viterbo College
Wisconsin State Law Library

AUSTRALIA
Australian National CJK Project
Australian National University
City of Rockingham
Deakin University
Edith Cowan University
La Trobe University
LISWA: The Library and Information Service of Western Australia
Murdoch University
Queensland University of Technology
South Metropolitan College TAFE
State Library of New South Wales
State Library of South Australia
Supreme Court of Queensland Library
University of Ballarat
University of Melbourne
University of Newcastle
University of New South Wales
University of Queensland
University of Sydney
University of Technology, Sydney
University of Western Australia
University of Wollongong
Victoria University of Technology

BOTSWANA
University of Botswana, Gaborone

CANADA
Athabasca University
BC Hydro Corporation
British Columbia Institute of Technology
Brock University
Canada Department of Citizenship and Immigration
Canada Department of Foreign Affairs and International Trade
Canada Department of Justice
Canada Earth Sciences Information Centre
Canada Institute for Scientific and Technical Information (CISTI)
Capilano College
Carleton University
Concordia University
Douglas College
Fraser Valley Regional Library
Gloucester Public Library
Human Resources Development Canada
Keewatin Community College
Kitchener Public Library
Medicine Hat College
National Gallery of Canada
Ontario Power Generation

CANADA (CONT.)
Ryerson Polytechnic University
Simon Fraser University
Sudbury Public Library
University of Lethbridge
University of Ottawa
University of Saskatchewan
University of Western Ontario
University of Winnipeg
Waterloo Public Library
West Vancouver Memorial Library

CHINA
East China Normal University
Hua Zhong Polytechnic University of Technology
National Accounting Institute
Tsinghua University
Xian Jiao Tong University
Zhejiang Provincial Library

EGYPT
American University of Cairo

ESTONIA
Estonian Academic Library
Estonian Academy of Arts
Estonian Academy of Music
Estonian Agricultural University
Estonian Literary Museum
National Library of Estonia
Tallinn Pedagogical University
Tallinn Technical University
Tartu Public Library
Tartu University

FRANCE
Canadian Embassy
École Normale Supérieure
Institut de l'Information Scientifique et Technique
Bibliotheque de la Sorbonne

HONG KONG
Chinese University of Hong Kong
City University of Hong Kong
Hong Kong Academy of Performing Arts
Hong Kong Baptist University
Hong Kong Hospital Authority
Hong Kong Institute of Education
Hong Kong Legislative Council
Hong Kong Polytechnic University
Hong Kong Trade Development Council
Hong Kong University of Science and Technology

HONG KONG (CONT.)
JULAC
Lingnan College
University of Hong Kong

IRELAND
Athlone Institute of Technology
Cork Institute of Technology
Dublin Institute of Technology
Dundalk Institute of Technology
Dun Laoghaire Institute of Art, Design and Technology
Galway-Mayo Institute of Technology
Institute of Technology, Blanchardstown Limited
Institute of Technology, Carlow
Institute of Technology, Sligo
Institute of Technology, Tallaght
Institute of Technology, Tralee
Letterkenny Institute of Technology
Limerick Institute of Technology
Tipperary Institute of Rural & Business Development Limited
Waterford Institute of Technology
University College of Cork

ITALY
European University Institute

JAPAN
Canadian Embassy
Waseda University

MEXICO
Benemerita Universidad Autonoma De Puebla
Instituto Tecnologico y de Estudios Superiores De Monterrey

NEW ZEALAND
Massey University

PHILIPPINES
International Rice Research Institute

POLAND
Biblioteka Narodowa

PORTUGAL
Instituto Portugues de Livro e das Bibliotecas Consortium
- Biblioteca Municipal de Abrantes
- Biblioteca Municipal de Montijo
- Biblioteca Municipal de Oeiras
- Biblioteca Municipal de Ponte de Lima
- Biblioteca Municipal Manuel Teixeira Gomes Quinta do Bispo

Biblioteca Municipal de Setubal

PORTUGAL (CONT.)
Biblioteca Municipal Camilo Castelo Branco Parque Urbano de Sincaes
Universidade Tecnica de Lisboa

SINGAPORE
National University of Singapore
Singapore Polytechnic

SOUTH AFRICA
SEALS Consortium
- Univ. of Port Elizabeth
- Rhodes University
- Univ. of Transkei
- Fort Hare University
- Border Technikon
- Port Elizabeth Technikon
- East London Technikon

GAELIC Consortium
- Council for Scientific & Industrial Research
- Medical University of South Africa
- Potchefstroom University
- Rand Afrikaans University
- Technikon Free State
- Technikon Northern
- Technikon North-West
- Technikon Pretoria
- Technikon South Africa
- Technikon Witwatersrand
- University of the Freestate
- University of the North
- University of the North West
- University of Pretoria
- University of South Africa
- University of Venda
- University of Witwatersand
- Vaal Triangle Technikon
- Vista University

National Research Library of South Africa

SPAIN
Biblioteca Foral-Diputacion de Bizkaia
Biblioteca Valenciana
Govern Balea
- Consell Insular d'Eivissa I Formentera
- Consell Insular de Mallorca; Palma
- Consell Insular de Menorca, Mao
- Ajuntament de Palma; Palma
- Biblioteca "CAN TORRO"; Alcudia

Government of Galicia
- Centro Superior Bibligrafico de Galicia

Red Global de Biblioteca de la CAIB Govern Balear
Salamanca University
- Universidad Pontificia de Salamanaca

SPAIN (CONT.)
Universidad de Cadiz
Universidad Complutense de Madrid
Universidad de Navarra
Universidad de Sevilla
Universitat de les Illes Balears
Universidad Pablo de Olavide

SWEDEN
Chalmers University of Technology
Gothenburg Public Library
Karlstad University
Karolinska Institutet
Malmo Stadsbibliotek
Malmo University
Pedagiska Centralen/The Pedagogical Centre
Sodertorns Hogskola
Stockholm School of Economics
Svenska Akadamiens Nobelbibliotek

TAIWAN
Academia Sinica
Chinese Medical College
Chung Yuan Christian University
Feng Chia University
National Central Library
National Changhua University of Education
National Chengchi University
National Health Research Institutes
National Kaohsiung First University of Science and Technology
National Kaohsiung Normal University
National Kaohsiung University of Applied Science
National Ping-Tung Teachers College
National Sun Yat Sen University
National Taiwan Ocean University
National Taiwan University
National Taiwan Normal University
National Yang-Ming Medical College

THAILAND
Asian Institute of Technology
Chulalongkorn University
Chiang Mai University
Kasetsart University
Khonkaen University
King Mongkut Institute of Technology, North Bangkok
King Mongkut Institute of Technology, Ladkrabang
King Mongkut University of Technology, Thonburi
Mahasarakham University
Mahidol University
Naresuan University

THAILAND (CONT.)
National Institute of Development Administration
Prince of Songkhla University at Pattani
Ramkhamhaeng University
Silpakorn University, Anthropology Centre
Silpakorn University, Central Library
Silpakorn University, Thapra Palace

TURKEY
Bogazici University
Ege University
Istanbul Bilgi University
Istanbul Teknik University
Koc University
Sabanci University

UNITED ARAB EMIRATES
American University in Sharjah

UNITED KINGDOM
Chester College of Higher Education
City University
Keele University
North East Wales Institute
Plymouth College of Art & Design
Sheffield Hallam University
St. Andrews University
St Mary's University
Trinity College, Cambridge
University of Durham
University of Essex
University of Exeter
University of Glasgow
University of Hull
University of Leeds
University of Liverpool
University of London
University of London, Institute of Classical Studies Library
University of London, School of Oriental and African Studies
University of London, School of Advanced Studies
University of Luton
University of Wales
The Wellcome Institute Library

ZIMBABWE
National University of Science and Technology
University of Zimbabwe

Innovative Interfaces, Inc.
5850 Shellmound Way•Emeryville, CA 94608•510-655-6200•Fax 510-450-6350•Email info@iii.com•www.iii.com

ESCROW AGREEMENT

I. ESTABLISHMENT OF ESCROW

So long as the within-described license is in full force and effect, and as an additional material consideration for the granting, acceptance and continued benefits obtained and derived from such license, Innovative Interfaces and the Library agree that a copy of all source code material necessary to maintain all software licensed thereunder shall be placed in escrow as follows. Furthermore, Innovative Interfaces will pay to list the Library on the escrow policy for one year from the signing of this Agreement; thereafter the Library may elect to continue on the policy for as long as the Library maintains a license to the Software, and the Library pays the renewal costs as determined by the Escrow Agent. All renewal notices will be sent by the Escrow Agent to the Library at the address listed herein:

A. The Escrow Agent shall be Data Securities International, 49 Stevenson Street, Suite 550, San Francisco, CA 94105. In the event that the above-named Escrow Agent fails or refuses to assume the responsibilities of Escrow Agent or ceases to act as Escrow Agent, the parties shall agree upon a new Escrow Agent and shall issue demands to Data Securities International to deliver the escrow material to such newly designated Escrow Agent.

B. Source code material shall be released to the Library by the Escrow Agent upon the occurrence of the following event:

   i. If any proceeding in receivership, liquidation or insolvency is commenced against Innovative Interfaces and the same be not dismissed within sixty days, or

   ii. If Innovative Interfaces make any assignment for the benefit of its creditors, becomes insolvent, ceases to do business as a going concern, or seeks any arrangement of compromise with its creditors under any statute or otherwise.

C. Verification of the occurrence of a condition precedent to the release of the escrowed materials shall be by a reasonable manner and means to the reasonable satisfaction of the Escrow Agent with written notice and opportunity to object given to Innovative Interfaces. The Escrow Agent shall have five days to release the escrowed documents or to advise the Library in writing of the existence of a conflicting demand.

D. Should the Library elect to continue on the Escrow policy, cost for annual renewal shall be approximately $200.00 for the first year renewal. Second and subsequent renewal fees shall be determined by the Escrow Agent, but with a percentage increase to the Library of not more than 5% or the percentage increase of the Consumer Price Index, whichever is greater.

II. VERIFICATION OF ESCROWED MATERIALS

Verification of escrowed materials shall be by certified letter from the Escrow Agent to the Library stating the identity of each document placed in escrow, the physical location of the escrow, and the date of establishment of the escrow.

III. ENHANCEMENT AND MODIFICATION

In the event that the software supplied to the Library pursuant to the above-described license is enhanced or modified, the Licensor agrees to deposit into escrow all documents and data reasonably necessary to support and maintain such enhancements and modifications pursuant to all of the terms and conditions of this escrow agreement.

IV. CONFLICTING DEMANDS

In the event that the parties to this agreement, at any time, give the Escrow Agent conflicting demands, the Escrow Agent shall promptly attempt to resolve the conflict. In the event that the Escrow Agent is unable to resolve the conflict within ten days, the Escrow Agent shall interplead the escrowed materials into a court of competent jurisdiction. Each of the parties hereto agrees to indemnify and hold the Escrow Agent harmless from all costs and expenses, including reasonable attorney's fees, in the event that a conflict of demands requires interpleader.

V. TERMS OF RELEASE OF ESCROWED MATERIAL

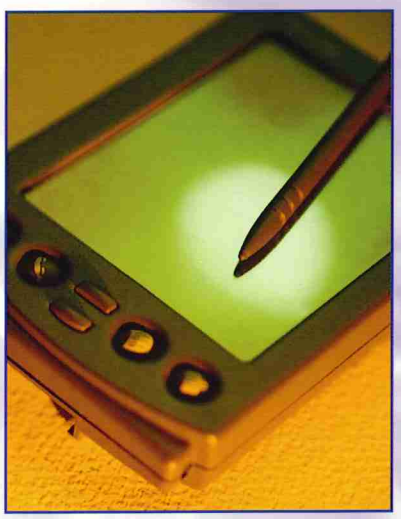
In the event that the material escrowed hereunder is released to Licensee, said materials shall nevertheless remain the property of Innovative Interfaces, its assigns, trustees, and/or successors in interest. The escrowed materials shall be subject to all of the terms and conditions of the underlying license granted to Licensee, including but not limited to, trade secrets and confidentiality protection. The Library agrees that the escrowed materials shall be used exclusively for the maintenance of the licensed software and for no other purposes. The Library agrees to make all persons working with such licensed escrowed material aware of the terms and conditions of the license and their liability for unauthorized use of the licensed escrow material.

Wireless Public Access Catalog

Wireless technology is emerging as a pervasive method of data interchange. Innovative has embraced wireless access and announces a catalog interface designed for wireless devices.

The Challenges of Wireless

The wireless revolution presents a number of different challenges. The first is, simply, how to send data without wires or cables. Technological answers are rapidly becoming available, such as Bluetooth™ or the infrared beaming used by the Palm™ devices. But removing wires is only the first step. The next question becomes how to format output so that it is readable by applications such as "microbrowsers" run on handheld devices. Options include the output of pages in Wireless Markup Language (WML) to a microbrowser, or as "MIDlets," Java™ applets designed to run on wireless devices. Some other considerations include download time, real estate on the wireless devices, sophistication of applications, space, memory, and download time for applets or "MIDlets," and graphics.



Wireless Access Protocol includes a specification for WML, an XML document type which is designed to be read by microbrowser applications. HTML can be filtered into WML, stripped down, or the server can generate its own WML.

KEY FEATURES

- The handheld device becomes a searching tool with which users can issue catalog searches from anywhere.
- Users can check call number, location, and availability as they move through the library stacks.
- Patron record can be checked anywhere, anytime.
- Automatic updating of handheld calendars.
- Automatic login from wireless device to server.

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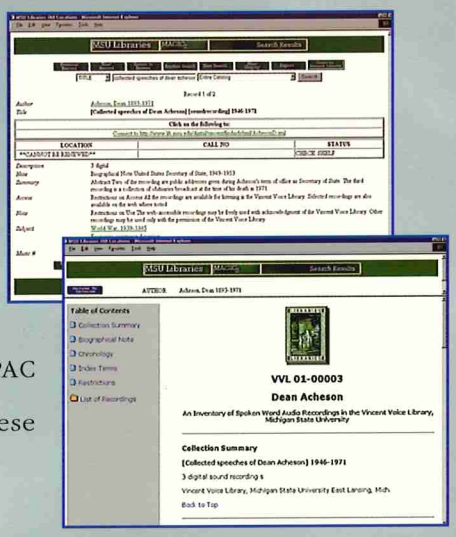
INNOVATIVE interfaces

XML Harvester

Libraries of all types and sizes are finding themselves with disparate resources within the library and databases of records outside of the cataloged collection. Innovative's XML Harvester leverages XML (Extensible Markup Language) technology and the EAD (Encoded Archival Description) standard to provide an automated cataloging tool that can create library records for EAD entities stored on servers anywhere in the world. The XML Harvester maps EAD records into MARC format and allows for loading directly into the database. The catalog then becomes the central index for searching these materials – a one-stop search interface for the library's electronic resources.



The XML Harvester unifies access to different XML databases under the library's Web-based catalog interface, integrating external records into the library catalog on the fly so that the OPAC becomes a single point of access for all these resources.

KEY FEATURES

- WebCrawler: can be sent to any server or directory accessible through the World Wide Web to harvest the XML records found there, according to library-defined filters.
- Parser: creates MARC records for each valid EAD record crawled.
- Command Interface: offers the library direct control over filters, currency of records to be loaded, subfield sorting, and the loading of the MARC records into the library catalog.

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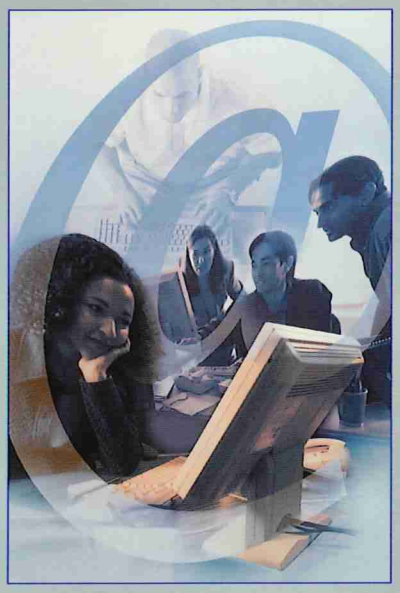
INN-Keeper

For those libraries whose operations would benefit from outsourcing the storage and maintenance of a local server, Innovative provides INN-Keeper, an ASP (Application Service Provider) solution.

INN-Keeper is a fully functional Millennium system maintained by Innovative staff. INN-Keeper systems are housed on a secure, dedicated server and are always available to patrons and staff via the Internet.



Innovative takes care of all system administration, including day-to-day maintenance, backups, installation of new software releases, and more. This solution provides the same system that is available on the locally licensed Millennium, without the requirements of an onsite server.

INN-Keeper offers the same flexibility for the loading and profiling of data for the library; in addition, the library receives the same onsite training for all modules of the system—just as with any other Millennium installation.

Combining Innovative's strengths in functionality, performance, service, and support, INN-Keeper offers the range of Innovative solutions without the requirements of local support. Innovative becomes your system administrator!

KEY FEATURES

- Fully functional Millennium system: you can create your own configuration
- No need for onsite hardware and maintenance support
- Low-cost lease arrangement
- Secure
- Proven track record: in use by libraries since 1997

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INNOVATIVE interfaces

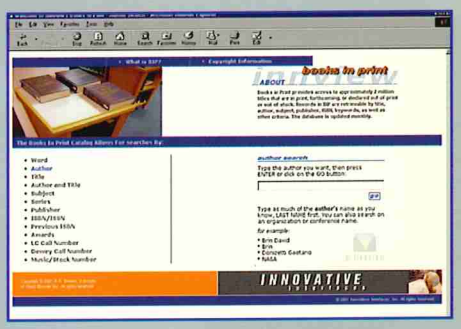
INN-View
Innovative's Web-content hosting service

What is INN-View?

INN-View is Innovative's Web-content hosting service which was established in 1994. Content is housed at Innovative headquarters in California, maintained by Innovative staff, and is available to Innovative customers as a for-fee subscription service. These databases can be accessed via the World Wide Web either directly or by using integraed contextual WebBridge links from within both staff and OPAC Millennium modules.

Why INN-View?

- INN-View provides access to up-to-date content using a familiar Web interface and searching syntax.
- All INN-View databases are fully WebBridge-compatible, allowing local Web OPAC displays to be enriched with INN-View content.
- Innovative staff maintains the content and the interface, 24 hours a day, 7 days a week.
- Library controls access to your subscribed databases.



New features include:

- Z39.50 server access to Books in Print.
- Advanced Searching, including Boolean operators, proximity and adjacency searching, and relevance ranking of results.
- New enhanced Web interface.

INN-View currently supports these databases of library-oriented content:

Books in Print with reviews (Bowker): Books in Print (BIP) provides access to approximately 2 million titles that are in print, forthcoming, or declared out of print or out of stock. The database is updated weekly.

- Books in Print Publisher Authority Database: The Publisher Authority Database (PAD) is a companion data base to the BIP Database and is published by the R.R Bowker Company. PAD is used to store Publisher/Distributor/Wholesaler-related information and contains over 120,000 publisher records.

Legal Resources Index (Gale Group): An index to 900 legal publications, including all major law reviews, journals and newspapers. Coverage starts from 1980.

Wilson Index to Legal Periodicals (HW Wilson Company): Index to Legal Periodicals is a bibliographical database that cites articles from more than 615 legal periodicals. Coverage includes law reviews, bar association journals, university publications, yearbooks, and government publications.

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INNOVATIVE interfaces